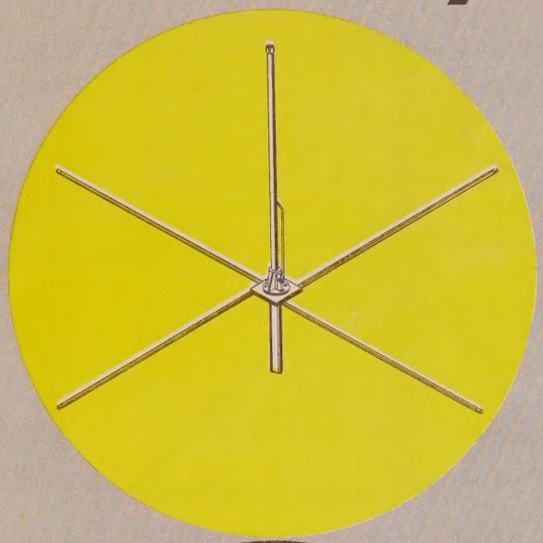
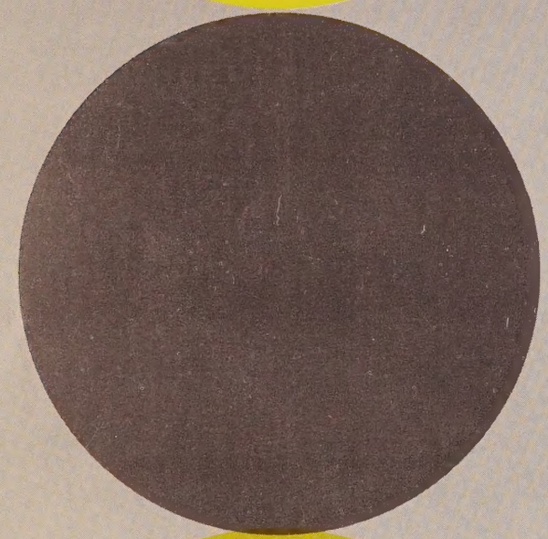
Mosley GROUND PLANE VERTICALS for 2 • 6 • 10 m



Rugged . . . Durable!
Fully Rust Proof!
Fully Corrosion Proof!
Stainless Steel Hardware!
61ST6 Heavy Gauge Aluminum!

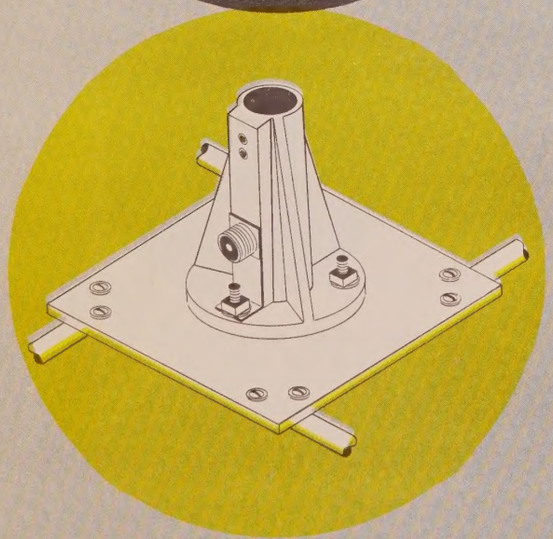
MOSLEY 2, 6, and 10 meter Ground Plane Verticals. Excellent for all communications circuits in the 2, 6, or 10 meter bands where vertical polarization and omnidirectional pattern are required and where simplicity of installation on roof or tower is desired. Mosley single-band ground plane antennas require no additional radials or grounding and install securely to standard 1¼'' ID pipe mast. No guying needed above the base mount. Refer to VSWR curves, opposite side of page, for bandwidth characteristics.

V-144-GP (2 meter)	**Amateur Net, $26.95**
V-52-GP (6 meter)	**Amateur Net, $32.50**
V-28-GP (10 meter)	**Amateur Net, $34.95**



HEAVY DUTY BASE

MOSLEY Ground Plane Vertical Antennas feature a sturdy base mount designed for rigid, non-guyed support. Ribbed component is molded of high-impact polystyrene and incorporates a coax fitting to the unit. Base plate is 1/8'' 61ST6 aluminum mounted on a cast aluminum flange (not visible in illustration) which fits over a 1¼'' ID pipe mast. Ground plane radials bolt securely to base plate. Antenna Model V-28-GP is engineered to withstand wind velocities up to 75 miles per hour. Models V-144-GP and V-52-GP are designed for higher wind velocities.



DISTRIBUTED BY: ELMAR ELECTRONICS
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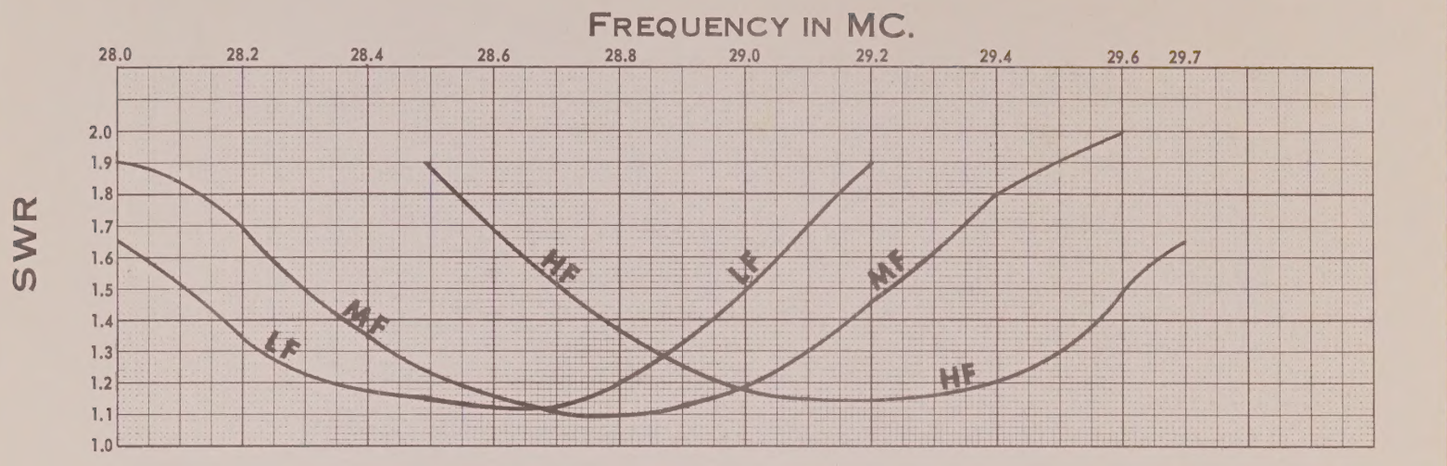
M·E·I

MOSLEY ELECTRONICS, INCORPORATED
4610 North Lindburgh Boulevard
Bridgeton, Missouri

SWR/Frequency Curves

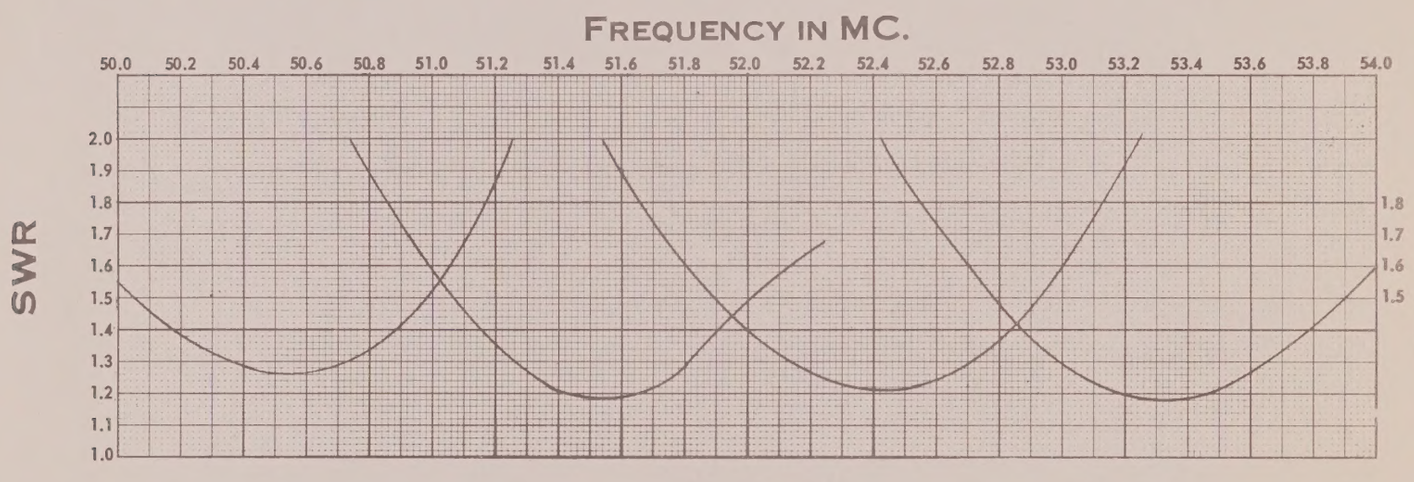
The SWR/Frequency Curves reproduced here were drawn from data compiled during actual field tests of production model antennas.

SWR GRAPH FOR V-28-GP

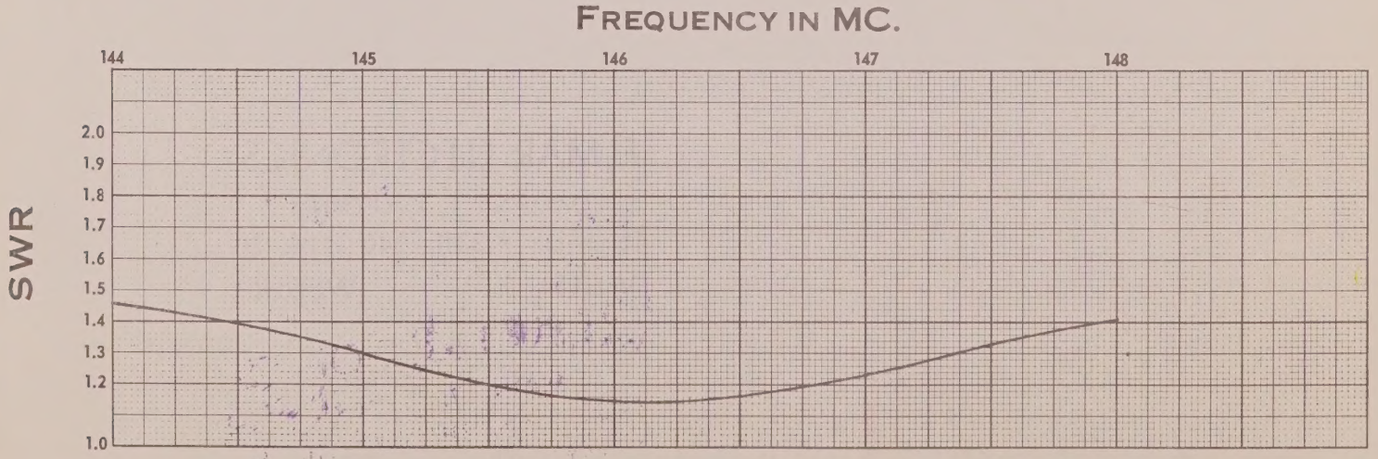


LW - LOW FREQUENCY MF - MEDIUM FREQUENCY HF - HIGH FREQUENCY

SWR GRAPH FOR V-52-GP



SWR GRAPH FOR V-144-GP

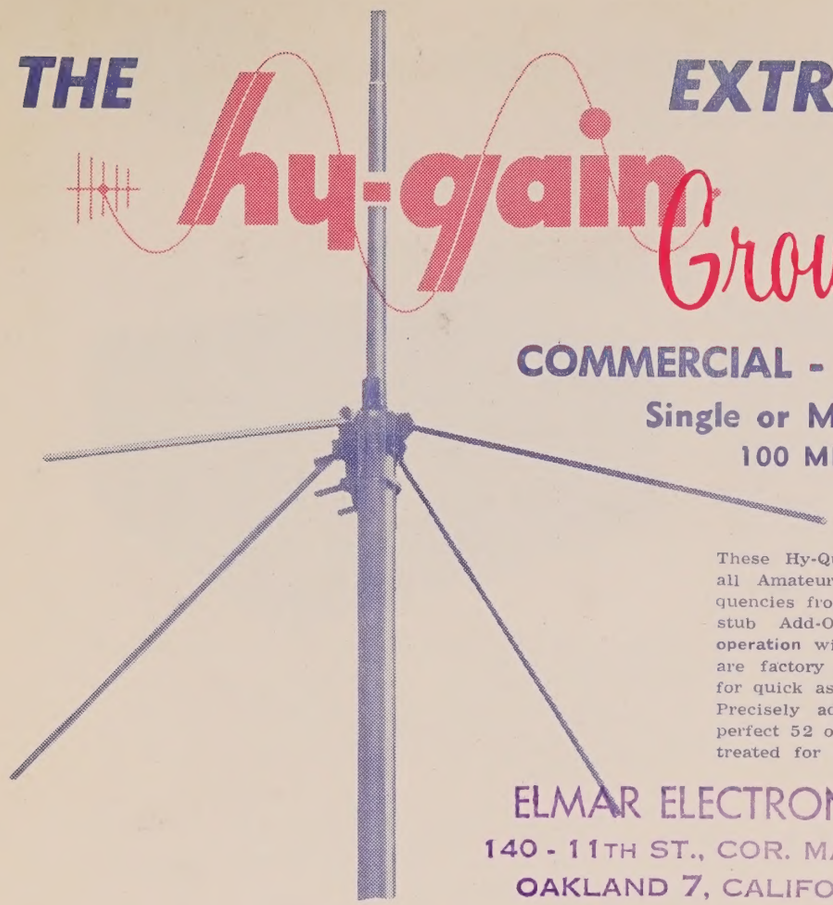


THE hy-gain EXTRA HEAVY DUTY Ground Planes

COMMERCIAL - AMATEUR - CITIZEN BAND

Single or Multi-Frequency Operation

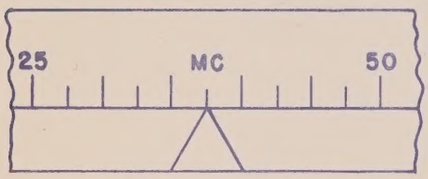
100 MILE PER HOUR RATING

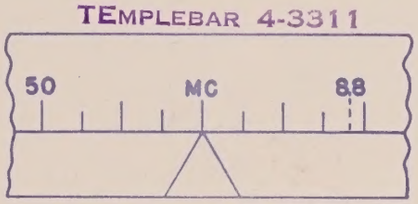


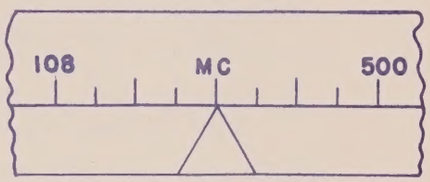
These Hy-Quality, Hy-Gain Ground Planes are designed to cover all Amateur, Commercial and Citizens Band communications frequencies from 25 through 500 mc. Especially designed decoupling stub Add-On Kits available, making possible **multi-frequency operation** with a single feed line. The antennas and Add-On Kits are factory pre-tuned and complete with easy-to-follow directions for quick assembly on any single or multiple frequency (up to 4). Precisely adjusted drooping ground plane radials make possible perfect 52 ohm match. All hardware hot dip galvanized and iridite treated for maximum weather ability.

ELMAR ELECTRONICS
140 - 11TH ST., COR. MADISON
OAKLAND 7, CALIFORNIA
TEMPLEBAR 4-3311

Input Impedance: 50 ohms
Coaxial Termination: Type S0239
Maximum Power Input: 1,000 watts
VSWR: Less than 1.2:1 at Resonance
Unity Gain

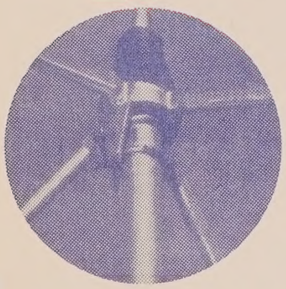






MODEL GP-1

Net **$29.95**

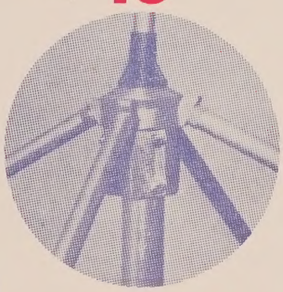


GP-1

Radiator and ground plane radials telescoping ¾" and ⅝" heavy wall aluminum tubing type 6061T6 heat treated alloy. Heavy duty cycolac base insulator and heavy universal base casting. Fits all mast diameters up to 1⅝".

MODEL GP-2

Net **$16.95**

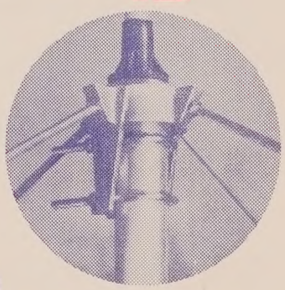


GP-2

Radiator and ground plane radials telescoping ¾" and ⅝" heavy wall aluminum tubing type 6061T6 heat treated alloy. Polyethylene base insulator and heavy universal base casting fits all mast diameters up to 1⅝".

MODEL GP-3

Net **$12.95**



GP-3

Radiator ¾" and ⅝" heavy wall aluminum tubing type 6061T6 heat treated aluminum alloy. Ground radials ¼" diameter solid aluminum rod.

MULTI-FREQUENCY ADD-ON DECOUPLING STUB KITS

MODEL 2AK: Attaches to Models GP-1 or GP-2 Hy-Gain Ground Planes, making possible low SWR single feed line operation on any additional frequency in the 50 to 88 mc spectrum. Net: **$7.50**

MODEL 3AK: Attaches to Models GP-1, GP-2 or GP-3 Hy-Gain Ground Plane, making possible single feed line low SWR operation on any additional frequency in the 108 to 500 mc spectrum. Net: **$4.50**

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hy-gain antenna products

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GONSET COMMUNICATIONS EQUIPMENT | CONDENSED CATALOG

Model numbers, description and prices, together with identifying photos of units are given for Gonset product line. All prices shown are f.o.b. factory. Prices and specifications of equipment are subject to change without prior notice.

COMMUNICATOR IV—2 METER TRANSCEIVER

Completely new—inside and out! Transmitter power greater than ever at 20 watts input. High level speech clipping and 10 watts of audio insure full talk power! Transmitter is crystal controlled, offers choice of six frequencies. Broadband circuitry in driver eliminates panel controls.

Receiver uses latest frame grid VHF tubes in RF and mixer for low noise figure of 4-6 . . . triple conversion with crystal controlled first conversion . . . excellent sensitivity, selectivity. Also automatic noise limiter, adjustable squelch, "S" meter, slide rule-type dial, panel speaker. Built-in power supply operates on both 117V AC and 12V DC. DC supply is transistorized, eliminates vibrator. Power cables are supplied for shift from AC to DC. Size: 5"H, 12½"W, 11"D. Weight, 21.8 pounds.

DC operation is with **negative ground only.**

Model #3341 . . . . . 369.50

COMMUNICATOR IV—6 METER TRANSCEIVER

Communicator IV for 6 meters is the same size and general appearance as the 2 meter model. Tunable receiver covers 49.9 to 54.1 with the 50-51 mc range spread over one third of the dial range. Receiver is triple conversion type, has sensitivity of 1.0 uv (for 10 db S+N/N) or better. Noise figure is 6-8 db.

Transmitter operates at power input of 24 watts, has six crystal control positions with socket for external VFO. Crystals are in the 8.333 to 9 mc range. Equipment has push-to-talk provisions.

2-way power supply, 12V DC and 117V AC is built in. DC supply is transistorized, operates **negative ground only.**

Less microphone **Model #3342 . . . . . 349.50**

COMMUNICATOR IV—1¼ METER TRANSCEIVER

The first commercially-produced "package" operating on the amateur 220 megacycle band! Operates at an input power of 20 watts—substantial for VHF—incorporates an excellent superheterodyne receiver.

Triple conversion receiver is continuously tunable over the frequency range of 219.7 to 225.3 mcs. To comply with OCDM requirements, additional provision is made for spot frequency reception on one crystal controlled frequency. Receiver sensitivity is 1.0 uv for 10 db S+N/N ratio. Noise figure is 6-8 db, exceptional for equipment of this general type. Adjustable squelch and ANL are included.

Transmitter is crystal controlled, offers choice of 6 frequencies. (Required crystals are within the range of 8.143 to 8.333 mcs.) Provision is made for external VFO. Power input to PA is 20 watts, amplitude modulated by P-P 6BQ5's operating in Class AB1. High level speech clipping and audio shaping are incorporated.

Unit is identical in size and general appearance to the Communicator IV 2 meter model. 2-way power supply for 117V AC and 12V DC (**negative ground**) is built in.

Model #3351 . . . . . 394.50

COMMUNICATOR IV—CD MODEL, KITS

CD COMMUNICATOR IV-OCDM

2 meter Communicator IV for Civil Defense. (OCDM Type U-70). Consists of Model #3341 with Model #3409 kit and crystal certificate.

Model #3341-CD 404.00

CD KIT FOR 2 METERS

Kit converts standard Communicator IV models to meet OCDM requirements. Includes Type 350 ceramic microphone, yellow-color canvas bag, 23" telescoping antenna for 2 and 1¼ meters, CD decals and crystal certificate.

Model #3409 . . . . . 34.50

VFO FOR 6, 2 AND 1¼ METER COMMUNICATORS

New VFO is designed for use with all Gonset Communicators including Models I, II, III and IV. Dial scale is calibrated for 50, 144 and 220 megacycle bands. Microphone connector with FM modulator are provided to allow VFO to be used for Narrow Band FM. Excellent stability.

Model #3357 . . . . . 69.50

COMMUNICATOR IV ACCESSORIES

UNIVERSAL MOUNTING BRACKET

Kit provides universal bracket for mounting any model Communicator IV in a car. All Communicators have threaded inserts in side of cabinet to fit this bracket.

Model #3365 . . . . . 3.95

CERAMIC MICROPHONE

Microphone has press-to-talk switch and coiled cord.

Model #3250 . . . . . 9.95

CANVAS CARRYING BAG

Carrying bag for all Communicator IV models. Bag has pocket for antenna, microphone and cables. Material is blue-color canvas and is without insignia.

Model #3363 . . . . . 12.00

GSB-201 SSB RF LINEAR AMPLIFIER

This entirely new linear amplifier is exceptionally compact—is only 8½" high, 12⅝" wide and 17" deep—lends itself readily to table-top mounting. It is finished in blending light colors, presents a handsome clean-cut appearance.

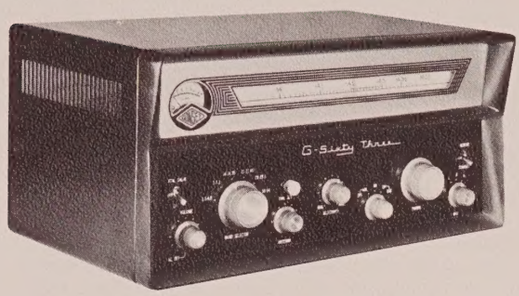
The linear amplifier covers 80, 40, 20, 15 and 10 meter amateur bands, incorporates full bandswitching, has pi network output. Power input rating is 1500 watts PEP SSB, 1000 watts CW, 400 watts AM. This amplifier can be driven by exciters in the 65-150 watt category, GSB-100 and similar units. Stable, grounded-grid circuitry is used.

GSB-201 incorporates a number of desirable operating features which include the use of low cost Type 811A tubes. Older type vacuum tube rectifiers are replaced by modern, long-life silicon types in the high voltage supply. Antenna changeover relay is built-in. A panel switch permits preliminary tuning to be done at low power. A full vision panel instrument is switchable to indicate plate current or relative power output.

Model #3340 . . . . . 399.50

GONSET COMMUNICATIONS EQUIPMENT

G-63 ALL-BAND RECEIVER



An excellent amateur communications receiver with coverage of 6 bands: 80, 40, 20, 15, 10 and 6 meters. Exceptional sensitivity and signal-to-noise ratio on all bands—a really "live" receiver on 6 meters! Unit is highly stable, has low frequency drift. Each amateur band is spread fully across the full vision drum dial. G-63 has **two** second detectors—a **Product type** for SSB/CW and a **Diode type** for AM reception.

G-63 uses double conversion with 1st I-F at 2065 kc for low image, the 2nd I-F at 263 kcs for selectivity with multiple tuned band-pass circuits for steep-shoulder response. Peaking-type "Q" multiplier permits I-F response for CW to be varied down to 100 cps. Operating features include AVC, ANL, "S" meter, provisions for crystal calibrator. Cabinet is finished attractively in gunmetal gray with panel in black with satin aluminum trim.

Frequency range: 3.5-4 mcs, 7-7.3 mcs, 14-14.35, 21-21.45 mcs, 28-29.7 mcs, 50-54 mcs. Tubes: 6BZ6 (RF), ½—6U8A (1st conv.), ½—6U8A (HF osc), 6BE6 (2nd conv.), 6BA6 (1st I-F amp), 6BA6 (2nd I-F amp), 6AL5 (2nd det. AVC-ANL), 6BE6 (product det. BFO), ½—12AX7 (1st I-F), 6AQ5 (output aud.), 5Y3GT (rect.), OB2 (volt reg.)

Model #3260 . . . . . .239.50

G-63 RECEIVER ACCESSORIES

CABINET ENCLOSED SPEAKER

Handsome, modern speaker unit for use with G-63 and G-43 receivers.

Model #3285 . . . . . .19.95

PLUG-IN CRYSTAL CALIBRATOR

Designed for use in G-63 and G-43 receivers or G-76 transceiver

Model #3269 . . . . . .14.95

G-43 ALL-BAND RECEIVER

G-43 all-band receiver features modern, attractive styling, excellent performance, 6-band coverage: .54-1.6 mcs; 1.8-5.7 mcs; 5.7-13 mcs; 13-20 mcs; 20-25 mcs; and 25-30 mcs. 6 band coverage gives better stability, easier tuning. Drum dial shows only band in use, logging scale. Calibration on band 6 provides for use of VHF converters. IF has 6 double-tuned Hi-Q transformers at 1650 kcs. for desirable selectivity. Panel controls include main tuning, band-spread tuning, bandswitch, audio volume, sensitivity, antenna trimmer, ANL on-off, phone-CW, standby-receive, "S" meter, provision for crystal calibrator. Tubes: 6BE6 (conv); 6BA6 (1st IF); 6BA6 (2nd IF); 6AU6 (3rd IF); 6AL5 (det, AVC, ANL); 12AX7 (1st Audio, BFO); 6CM6 (2nd Audio); 6X4 (rect.)

Model #3241 . . . . . .159.50

Plug-in Crystal Calibrator for G-63 and G-43 receivers.

Model #3269 . . . . . .14.95

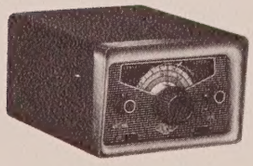
G-33 ALL-BAND RECEIVER

G-33 is similar in construction and general appearance to G-43, has simplifications to provide greater economies. Tunes .54-1.6 mcs; 1.8-6 mcs; 6-13 mcs; and 13-34 mcs. Bandspread dial has calibrated scales for amateur bands. 1650 kc I-F results in greatly-improved image rejection. 3 double tuned Hi-Q transformers provide excellent I-F selectivity.

Panel controls include: Main tuning, band-spread tuning, bandswitch, audio volume, antenna trimmer, sensitivity, function selector. Tubes: 6BE6 (conv), 6BA6 (1st I-F), 6BA6 (2nd I-F, BFO), 6AV6 (det, AVC, 1st audio), 6CM6 (2nd audio), 6X4 (rectifier).

Model #3222 . . . . . .89.95

SUPER 12, SIX-BAND CONVERTER



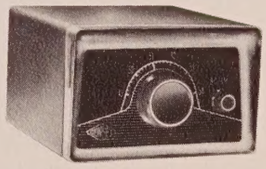
Super 12 provides coverage of 6 amateur bands: 10, 15-20, 40 and 75 meters plus 19 and 49 meters for coverage of international shortwave broadcasts. Calibrated dial scale uses various colors to aid in identification of bands. Planetary drive provides vernier tuning.

Sensivity and stability are excellent. Antenna trimmer on panel maximizes antenna in use. BC-HF switch permits instant return to standard BC. Super-12 is attractive . . . blends well with instrument panel of modern cars. Compact size facilitates mounting. Highest quality components and precision workmanship ensure long, trouble-free operation. Installation is simple, non-technical—no alteration or internal connections to existing broadcast receiver. Converter simply patches into antenna input connector of car radio . . . attaches to 12 volt accessory post under dash. Install in minutes with ease.

12 volts DC neg. ground only.

Model #3261 . . . . . .74.50

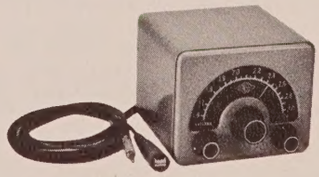
6 METER CONVERTER



Provides excellent 6 meter reception when operated with conventional automobile broadcast receivers or with communications or broadcast-type home receivers. Has full-vision calibrated dial. Is compact, simple to install. Switch connects filaments for 6 or 12V. Built-in Gonset noise clipper can be connected to receivers not having such provisions.

12 volts DC neg. ground only. **Model #3275 . . . . . .74.50**

12 VOLT, POLICE-MARINE CONVERTER



For mobile reception of maritime and police bands, 1600 to 3000 kcs. Operates in conjunction with existing auto set on any car having 12 volt battery system.

Installation is simple, rapid. No alteration of auto set. Cable and plug supplied fits antenna receptacle of auto set. Attaches to 12 VDC accessory post behind dash for operating voltage. Size: 3½"H, 4"W, 4"D.

12 volts DC neg. ground only. **Model #3163 . . . . . .29.50**

COMMUNICATIONS EQUIPMENT

G-76 ALL-BAND TRANSCEIVER FOR FIXED OR MOBILE SERVICE

G-76, an entirely new unit consisting of transmittter and receiver in a single compact housing. Provides AM or CW operation on 80, 40, 20, 15, 10 and 6 meter amateur bands. The G-76 incorporates proved design features of the famed Gonset G-66/G-77 "Twin sparklers," adds many new advances for top fixed station and mobile operation

Receiver is dual-conversion with 1st I-F at 2065 kcs, 2nd I-F at 262 kcs. Features include BFO for SSB and CW reception—automatic noise limiter. Unit has excellent selectivity and sensitivity. Transmitter and receiver oscillators are temperature compensated. Transmitter has stable VFO for all bands except 50 mcs which is crystal control only. Crystal control of other bands is optional. Power input to transmitter is 100 watts AM, phone, 120 watts, CW. Final tube is 6DQ5 operating into pi network output. Control is push-to-talk or by T-R switch on panel. Meter facilitates tuning, acts as "S" meter on receive. Dimensions: 12½"W, 5"H and 10½" deep. Unit has internal socket for crystal calibrator (optional) also panel switch for calibrator operation.

Model #3338 . . . . . .399.50

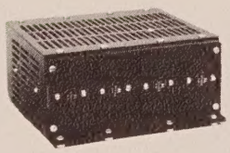
G-76 SPEAKER/POWER SUPPLIES

G-76 AC SUPPLY/SPEAKER

115V AC power supply and loudspeaker unit for G-76 in single cabinet to match unit.

Model #3349 . . . . . .145.00

G-76 DC POWER SUPPLY



12V DC transistorized power supply for G-76. W/cable less speaker. Negative ground only.

Model #3350 . . . . . .145.00

G-76 TRANSCEIVER ACCESSORIES

UNIVERSAL MOUNTING BRACKET

Kit provides universal bracket for mounting G-76 in a car.

Model #3365 . . . . . 3.95

PLUG-IN CRYSTAL CALIBRATOR

Designed for use in G-76 transceiver or G-63 and G-43 receivers.

Model #3269 . . . . . .14.95

CERAMIC MICROPHONE

Microphone has press-to-talk switch and coiled cord.

Model #3250 . . . . . 9.95

GSB-100 SSB TRANSMITTER

GSB-100 is a complete, self-contained SSB transmitter for operation on 80-40-20-15-10 meter bands. This transmitter is rated at 100 watts PEP input, operates on SSB with selectable sidebands, phase modulation, AM and CW.

Output circuit utilizes pi-network. The new GONSET FILTER-PHASING network gives high sideband rejection, uses a quartz crystal band-elimination filter for carrier suppression of more than 60 db. This filter avoids critical carrier balancing.

Frequency control is by fixed quartz crystal and built-in VFO. Latter features exceptional stability. Unit gives full 600 kcs within all amateur bands, 80 through 10. Highly effective voice-operated control system, (VOX) is provided. Heavy duty 115 VAC power supply is built-in.

Model #3233. . . . . .499.50

6 METER FIXED STATION COMMUNICATOR

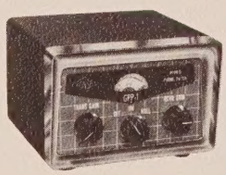
G-50 is a complete station "package" for 6 meter operation. Receiver is highly sensitive, selective superhet with "S" meter, ANL, adjustable squelch, panel mounted speaker. Transmitter uses 6146 in pi network final at 40-50 watts input. Frequency control is by crystal or built-in highly stable VFO. Latter gangs with multiplying stages, eliminates excitation controls. Dial is calibrated 50-54 mcs. Modulator uses two 6L6GB's. Compact housing, 7½"H, 13"W, 12½"D contains receiver, transmitter, power supply. For 117V AC operation only.

Model #3221 . . . . . .319.50

CD MODEL. Similar in general appearance to standard amateur model but is certified as meeting applicable specifications under OCDM U-68. Cabinet is same size as amateur model, has appropriate CD markings. Mic. and crystal certificate included.

Model #3300-CD 349.50

GPP-1 HYBRID BALANCED PHONE PATCH



GPP-1 provides the ideal "patch" between amateur station transmitting/receiving equipment and land line telephone circuits. Adjustable hybrid balancing permits optimum balance for any particular set of conditions. Panel meter indicates correct balance, also switches to show line level under patch conditions, thereby avoiding line overload and crosstalk. No power required . . . simple to install, operate. Only 4½"H, 6"W, 6¼"D.

Model #3273. . 44.50

NOISE CLIPPER

A "must" for every mobile installation operating above 2 or 3 mc to reduce ignition interference. Works with all AM receivers using conventional diode detectors, easy to install. Complete instructions furnished.

Model #3001. . . . . .11.95

MONITONE

For use as a code practice oscillator and as an effective monitor for phone and CW xmtrs. Has audio oscillator controlled by external circuit, provides audible tone on panel speaker or earphones. Separate pitch and volume controls. Uses RF pickup from xmtr. for operation as effective CW or phone monitor. Operates from 115 VAC with isolating circuitry so that neither keying nor earphone leads are "hot" to ground.

Model #3022 . . . . .29.50

GONSET COMMUNICATIONS EQUIPMENT

G-12 CITIZENS COMMUNICATOR FOR 11-METER CITIZENS BAND

A complete 4-channel station for virtually unlimited business or private use in car . . . truck . . . tractor . . . boat . . . plane. Operates within 26.965 to 27.235 mc. Easy to obtain station license—only simple FCC form to fill out . . . no exam or special skills required. No tuning . . . four crystal-controlled channels (transmitter/receiver) selectable by front panel switch for highest stability, reliability. G-12 features 5-watts input power . . . easy press-to-talk operation, ANL, superhet receiver with RF stage, adjustable squelch, built-in speaker, transmitter tune indicator. Fully FCC type accepted. Employs latest electronic design techniques. Is rugged, compact . . . only 4½"H, 7"W, by 10"D., weighs 11 lbs. Has gimball mount, built-in 12VDC/117VAC (or 6VDC/117VAC optional) power supply for fixed or mobile service. **per unit 149.95**

G-12 Citizens Communicator, 12VDC/117VAC. Includes mike and trans/rec. crystals for one channel..... **Model #3316**

G-12 Citizens Communicator, 6 VDC/117 VAC. Includes mike and trans/rec crystals for one channel ..... **Model #3329**

GROUND-TO-AIR COMMUNICATOR

Effective, 2-way VHF station in convenient, portable package. "Three way" power supply permits operation from 115 VAC mains or from 6 or 12 VDC vehicular battery. Xtal-controlled transmitter supplies full 6-7 watts output power with AC or DC power sources.

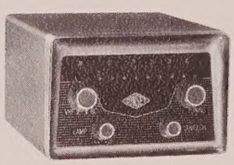
Superhet receiver has 6BZ8 low-noise RF in "cascode" circuit, selective IF, noise clipper, adjustable squelch. Receiver is tunable, 112 to 132 mcs. Simple, non-technical operation. Same size and weight as comparable Communicator III models. Can be used with integral whip or remote antenna with 52 ohm coaxial line.

Ground-to-Air Communicator, with mic, canvas carrying case and crystal certificate (6-12 VDC, 115 VAC).

Model #3139-GA 439.50

Telescoping Antenna, Communicator III series
Model #3152.....3.95

12 VOLT 30-50 MC FM CONVERTERS



Operates with existing 12 volt auto radio to provide excellent mobile FM reception. **Exclusive Gonset design** permits simple, non-technical installation in minutes.

No adjustments or alterations to auto set. Just plug converter into car radio and clip power lead to 12 volt "accessory" post under dash. Converter has adjustable squelch and dial lamp ON-OFF switch. General appearance similar to Model #3311. Operates only on cars having **negative grounds** on battery.

FM, 30-40 mc.....Model #3247
FM, 40-50 mc.....Model #3251
per unit 89.50

12 VOLT 88-108 MC FM TUNER

Now . . . full fidelity FM reception in your car. New converter operates with existing auto set and antenna, brings all the well known advantages of FM.

Tuner is easy to operate—only two controls, no fussy tuning. Just locate signal on dial. Unique "locking" Q circuit then positively and correctly tunes FM station to full fidelity. Installation is simple, non-technical. No alterations or adjustments to auto set. Tuner connects to 12 volt battery source, plugs into antenna connection of auto radio. For cars with **12 volt negative grounds only.**

88-108 mc FM.....Model #3311.....79.50

AIRCRAFT MONITOR RECEIVER

Economically priced AM receiver for communications monitoring and emergency applications in the VHF region. Complete with AC power supply, built in loudspeaker.

Full-vision, slide rule type dial is calibrated over the frequency range of 108-135 megacycles. Oscillator is temperature compensated for high stability. **This receiver meets FCC requirements for low oscillator radiation.** Operating features include excellent automatic volume control and adjustable squelch for muted standby.

Model #3156-B.....109.50

Gonset Division of Young Spring and Wire Corporation is a pioneer in electronic communications equipment manufacture. Located in Burbank, California, the Company was founded in 1942 by Faust Gonsett (from whom it took its name). The original Company was acquired by Young Spring and Wire Corporation in 1956. The Gonset label has been continuously associated with highest quality amateur radio equipment since the date of founding.

Today the division occupies a 65,000 square foot plant, employs 500, and is operated by a management team of 10 veteran electronics executives. The division now manufactures and markets a complete line of radio communications products—for amateur use, for mobile use by industry and private citizens. Special Gonset equipment may be found in vehicles of civil protective agencies and in use at airports and on Civil Defense networks.

Gonset products are distributed internationally by a network of franchised electronics wholesalers and retailers. The name Gonset is synonymous with Reliability in Radio products.

DISTRIBUTED BY:

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OAKLAND 7, CALIFORNIA
TEmplebar 4-3311 140 - 11th St.

GONSET *Division of Young Spring & Wire Corporation*
801 SOUTH MAIN ST., BURBANK, CALIFORNIA

520-550-B LITHO IN U.S.A.

INTRODUCING COLLINS S/ LINE OF AMATEUR SSB EQUIPMENT

32S-1
75S-1
30S-1

The completely new S/Line is Collins' latest addition to its distinguished single sideband series of amateur radio systems. Combining the quality and performance of the KWS-1, 75A-4 and KWM-1, the attractive new line is available in several configurations. Individual units on which a system may be built are the 32S-1 Transmitter, 75S-1 Receiver, 30S-1 Linear Amplifier, 516F-2 Power Supply, 312B-4 Speaker Console and 312B-3 Speaker.

The 32S-1 and 75S-1 may be operated separately or as a transceiver in which the receiver controls the transmitter frequency. With the 32S-1, the input is 175 watts PEP on SSB, and 160 watts on CW. The 30S-1 Linear Amplifier increases this power to full legal limit on SSB and 1 kw on CW. The 312B-4 Speaker Console integrates control of all station functions. To further increase the station's versatility, development is underway on a converter-mixer amplifier to provide operation on 2 or 6 meters.

32S-1 TRANSMITTER

The 32S-1 is an SSB or CW transmitter with a nominal output of 100 watts for operation on all amateur bands between 3.5 and 29.7 mc. Input power is 175 watts PEP on SSB or 160 watts on CW. Although the 32S-1 provides ample RF power for excellent communication, it can be used without modification to excite Collins' 30S-1 Linear Amplifier.

The transmitter actually covers 3.5 to 30 mc except for the 5.0-6.5 mc range. Crystal sockets, crystals and band switch positions are provided for 10 200 kc bands, with the standard amateur configuration equipped as follows: 3.4-3.6, 3.6-3.8, 3.8-4.0; 7.0-7.2, 7.2-7.4; 14.0-14.2, 14.2-14.4; 21.0-21.2, 21.2-21.4, 21.4-21.6. Crystal sockets and band switch positions also are provided for three 200 kc bands between 28 and 29.7 mc. One of these sockets is equipped with a crystal for 28.5 to 28.7 mc. A fourteenth position, corresponding to the WWV position on the receiver, can be used for an additional 200 kc band in the 9.5-15.0 mc range, if desired.

Time-proven features of the Collins KWS-1 and KWM-1 have been incorporated into the 32S-1, including Mechanical Filter-type sideband generation; stable, permeability-tuned VFO; crystal-controlled high frequency oscillator; RF inverse feedback for better linearity, and automatic load control for higher average talk power.

In physical size, the 32S-1 is quite similar to the KWM-1 Mobile Transceiver. The chassis, cabinet and panel are constructed of aluminum, and the cabinet wrap-around is perforated for ventilation. The front panel is chemically etched to provide a simulated leather appearance, with embossed areas for silk-screen lettering. The cabinet is finished in a light gray baked enamel, the panel a darker gray; the trim strip is silver anodized aluminum. The front panel and chassis may be removed as an integral unit simply by removing the four rubber feet and two other screws.

The 516F-2 Power Supply for the Transmitter is a separate unit, housed in a matching cabinet with room behind the front panel grill for mounting custom-installed station accessories. The Power Supply may be located either on the desk top or in an out-of-the-way location. KWM-1 owners may use the 516F-1 Power Supply with the 32S-1 if a suitable cable adapter is used. The 516E-1 12 v dc and 516E-2 28 v dc Power Supplies for the KWM-1 also may be used with the 32S-1.

specifications

TYPES OF EMISSION: SSB — upper or lower sideband.
CW — keyed tone.

POWER INPUT: 175 w PEP on SSB, 160 w on CW.

POWER OUTPUT: 100 w PEP nominal (slightly lower on 10 meters) into 50 ohms.

OUTPUT IMPEDANCE: 50 ohms with not more than approximately 2 to 1 SWR.

FREQUENCY RANGE: 80, 40, 20, 15 and 10 meter amateur bands — choice of any of 14 200 kc bands selected by means of a crystal switch. Easily retuned to frequencies between amateur bands by using different crystals. Crystal provided for one 200 kc segment of 10 meters.

OSCILLATORS: Double conversion circuit is used with CR-18/U crystals in the HF oscillator. A VFO, tuning 2.500 to 2.700 mc, provides 200 kc bands. A crystal oscillator operating on either side of the Mechanical Filter passband provides carrier for SSB generation and choice of upper or lower sideband.

FREQUENCY STABILITY: After warm-up, over-all stability due to temperature, humidity, pressure and voltage variation is 100 cps.
Calibration accuracy: 1 kc.
VISUAL DIAL ACCURACY: 200 cps all bands.
ELECTRICAL DIAL ACCURACY (after calibration): 300 cps all bands.
BACKLASH: Less than 50 cps.
HARMONIC AND OTHER SPURIOUS RADIATION: Carrier suppression —50 db. Unwanted sideband —50 db. Oscillator feed-through and/or mixer products —50 db. Second harmonic —50 db. 3rd order distortion —30 db.
KEYING CHARACTERISTICS: Break-in CW provided by operating VOX from keyed tone.
AUDIO INPUT: High impedance microphone and 600-ohm or high impedance phone patch.
AUDIO FREQUENCY RESPONSE (over-all): Nominal 300-2500 cps ±3 db.
AUDIO COMPRESSION CHARACTERISTICS: ALC applied to IF and RF amplifier stages provides 10 db compression.
RF FEEDBACK: Approximately 10 db of RF feedback around PA and driver for improved PA linearity.
NOISE LEVEL: 40 db below one tone carrier.
CONTROLS: Band Selector, VFO Dial, Emission Switch (Tune, Lock Key, LSB, USB, CW), Exciter Tune, PA Tune, PA Load Control (concentric with PA Tune), Microphone Gain, Meter Switch (ALC, PA Grid, PA Plate), Freq Control (Off, Rec VFO, Trans VFO, Sync).
INDICATING DEVICES: Panel meter to monitor final amplifier plate current, grid current and ALC voltage.
SIZE: Basic transmitter — 6⅞"H, 14½"W, 11⅝"D.
AC power supply — 7¾"H, 10"W, 12"D.
WEIGHT: Transmitter — 16 lbs.
AC power supply — 28 lbs.
AMBIENT TEMPERATURE RANGE: 0 to 50°C.
AMBIENT HUMIDITY RANGE: To 90%.
ALTITUDE: To 10,000 ft.

POWER SOURCE: 115 v, 50/60 cps.
Power supply must furnish:
800 v dc, .20 amps.
275 v dc, .175 amps.
6.3 v ac, 6.0 amps.
Bias adjustable between —60 and —80 v.
POWER REQUIREMENTS: CW key closed — 320 watts ac, or 23 amps @ 14 v.
SSB, average speech — 225 watts ac, or 16 amps @ 14 v.
TUBE COMPLEMENT: Audio Amp — 6U8A, Audio Amp-BFO — 6U8A, IF Amp — 6DC6, 1st mixer — 12AT7, 2nd mixer — 12AT7, RF Amp — 6AH6, Driver — 6CL6, Power Amp — 2 6146, VOX-Anti-VOX Rect — 6AL5, Rly Amp-Side Tone Osc — 6U8A, HF Xtal Osc — 6DC6, ALC Rect — 6AL5, VOX-Anti-VOX Amp — 12AT7, VFO — 6AU6.

75S-1 RECEIVER

The 75S-1 provides SSB, CW and AM reception on all amateur bands between 3.5 and 29.7 mc. It is capable of coverage of the entire HF spectrum between 3.5 and 30 mc by selection of the appropriate high frequency beating crystals.

The standard amateur configuration includes crystal sockets, crystals and band switch positions for: 3.4-3.6, 3.6-3.8, 3.8-4.0; 7.0-7.2, 7.2-7.4; 14.0-14.2, 14.2-14.4; 21.0-21.2, 21.2-21.4, 21.4-21.6. Crystal sockets and band switch positions are also provided for three 200 kc bands between 28 and 29.7 mc, with one of the sockets equipped with a crystal for 28.5 to 28.7 mc. A crystal and band switch position is also provided for 14.8-15 mc for reception of WWV and WWVH for time and frequency calibration data.

The same standard of excellence and many of the design features of the 75A-4 are incorporated in the 75S-1. These include dual conversion with a crystal controlled first beating oscillator; bandpass first IF in lieu of the older tunable first IF; stable, permeability-tuned VFO; special consideration in the design of the RF amplifier to minimize cross modulation products; Mechanical Filter for selectivity and sideband selection; excellent AVC characteristics for SSB reception with full RF gain, and product detector.

Among the new features of the 75S-1 are the use of only 150 volts on vacuum tube plates, resulting in less heat, more compact design and better reliability; use of silicon diodes in lieu of conventional high vacuum rectifier; choice of three degrees of selectivity, including either 2.1 or 0.5 kc with Mechanical Filters, or conventional IF transformers in lieu of Mechanical Filters.

A useful feature of the complete 32S-1/75S-1 station is provision for transceiver-type operation. Two plug-in patch cords provide the necessary interconnections between transmitter and receiver to enable the VFO and HF crystal oscillator in the receiver to control the transmitter frequency. A switch on the transmitter

panel permits selection of either transceiver or separate frequency control.

The 75S-1 contains its own built-in ac power supply. However, a power connector at the rear of the chassis provides for disabling the internal ac power supply so that either the 12 or 28 v dc power supply for the KWM-1 may be used to power the receiver as well as the transmitter.

Soon to be available as an internal accessory in the 75S-1 is the Collins noise blanker. This device is very effective in not merely limiting but in virtually eliminating impulse noise such as that caused by automobile ignition systems and power line leakage. Space for the noise blanker is provided by simply removing a blank aluminum plate from the 75S-1 chassis deck.

specifications

FREQUENCY RANGE:
80 meters — 3.4 to 4.0 mc.
40 meters — 7.0 to 7.4 mc.
20 meters — 14.0 to 14.4 mc.
WWV — 14.8 to 15.0 mc.
15 meters — 21.0 to 21.6 mc.
11 meters, 10 meters } Choice of three 200 kc portions of these bands; 28.5 to 28.7 furnished.
Overtravel — 7.5 kc on all bands.

FREQUENCY STABILITY: After warm-up, over-all stability due to temperature, humidity, pressure, and voltage variation: 100 cps.
Calibration accuracy: 1 kc.

VISUAL DIAL ACCURACY: 200 cps all bands.
ELECTRICAL DIAL ACCURACY (after calibration): 300 cps all bands.
BACKLASH: Less than 50 cps.

SENSITIVITY: The CW sensitivity is better than 1 microvolt (with a 50-ohm dummy antenna) for a 10 db signal-plus-noise-to-noise ratio.

SELECTIVITY: 2.1 kc Mechanical Filter for SSB; 0.5 kc Mechanical Filter (not supplied) for CW; 4.0 kc IF transformer passband for AM.
Skirt-to-nose ratio (60 to 6 db down) both Mechanical Filters: nominal 2 to 1.
Skirt-to-nose ratio (60 to 6 db down) for 4 kc IF transformer passband: nominal 5 to 1.

SPURIOUS RESPONSE: IF rejection is more than 70 db. Image rejection is more than 60 db. Crossover spurious down more than 50 db.

AUTOMATIC GAIN CONTROL:
AGC threshold — 1 microvolt nominal.
AGC time constant provides fast attack and slow release.

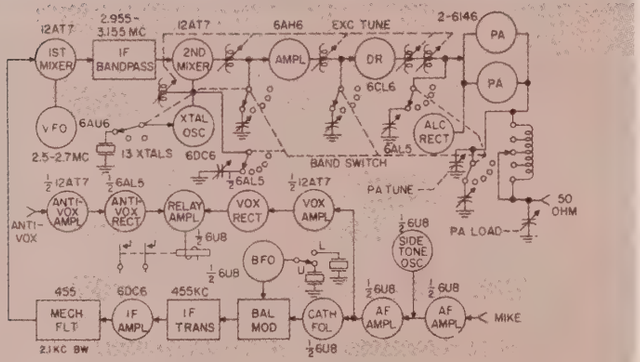
OUTPUT LEVEL: 0.75 w with 1 microvolt CW input.

CONTROLS:
The following controls are on the front panel:

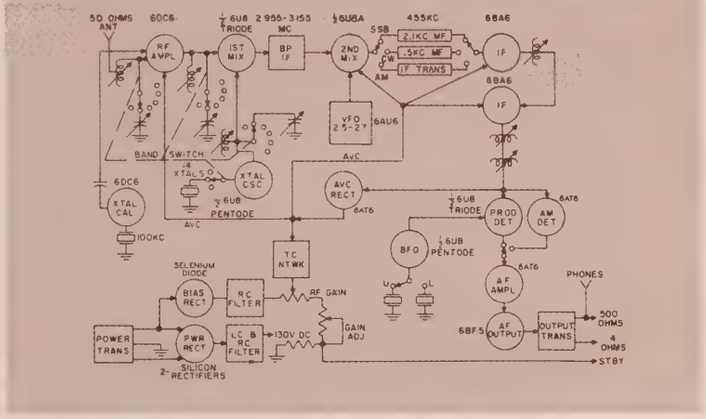
OFF-STANDBY-OPERATE-CAL	Band Switch
RF Gain	S-Meter
AF Gain	Main Tuning Dial
Phone Jack	Preselector
Dial Zero Set	Emission Selector

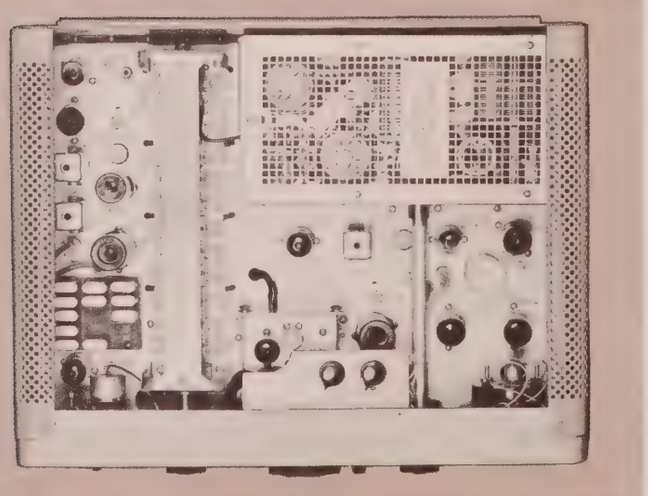
SIZE: 6⅞"H, 14½"W, 11⅝"D.
WEIGHT: 20 lbs.
AMBIENT TEMP. RANGE: 0 to 50°C.
AMBIENT HUMIDITY: To 90%.
POWER SOURCE: 105-125 v, 50-60 cps, 85 w (nominal).
TUBE COMPLEMENT: RF Amplifier — 6DC6, 1st Mixer — ½ 6U8A, 2nd Mixer — ½ 6U8A, Crystal Oscillator — 6DC6, 1st IF Amp — 6BA6, 2nd IF Amp — 6BA6, SSB-CW Det — ½ 6U8A, BFO — ½ 6U8A, Bias Rect — selenium diode, Rect — 2 silicon diodes, 1st Audio-AM det-AVC Rect — 6AT6, Audio-Output — 6BF5, VFO — 6AU6, VFO Isolation Amp — ½ 6U8A.

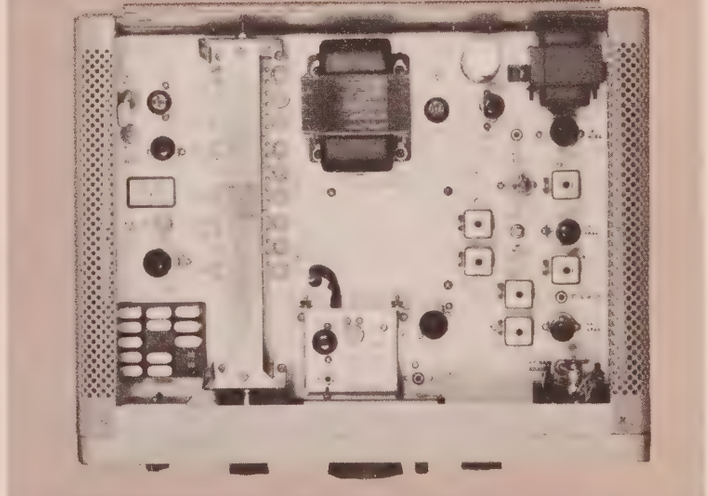
32S-1 TRANSMITTER



75S-1 RECEIVER







30S-1

LINEAR AMPLIFIER

The 30S-1 Linear Amplifier rounds out the S/Line to make a complete, high-powered amateur SSB station.

Built in a floor-mounted cabinet, the 30S-1 is a completely self-contained, single tube, grounded grid linear amplifier. Requiring 70 to 100 watts driving power (from the 32S-1 or KWM-1, for example), it provides the full legal power input for SSB (1 kw average) or 1 kw input for CW. The tube used is the Eimac 4CX1000A. Frequency coverage is consistent with the 32S-1 and 75S-1.

The 30S-1 may be loaded into an antenna without exceeding the legal dc input of 1 kw during tune-up. Correct tuning and loading are indicated by a meter with its zero at 20% of full scale. The loading control is simply adjusted for zero meter reading, while the PA tuning control is operated in the usual manner to obtain minimum plate current. At any power level, any deviation of the loading indicator from zero provides immediate warning of malfunction.

Front panel switching makes immediately available two different power levels for SSB operation: 100 watts from the exciter alone or the full 1 kw meter average input for SSB.

The air blower for the 4CX1000A operates quietly—barely audible in a quiet room.

As is true in all Collins linear power amplifiers, the 30S-1 is provided with RF inverse feedback for better linearity. Automatic load control voltage from the amplifier is fed back to the 32S-1 Transmitter or KWM-1 Transceiver.

The power supply for the 30S-1, which is housed in the lower portion of the cabinet, provides cathode bias voltage and 3000 volts for the 4CX1000A plate. Space is provided in this compartment for mounting the 516F-2 Power Supply.

specifications

FREQUENCY RANGES: 3.5-4.0 mc; 7.0-7.3; 14.0-14.4; 21.0-21.45; 28.0-29.7. Covers entire spectrum from 3.5 to 30 mc by retuning cathode circuit.

OUTPUT IMPEDANCE: 50 ohms, SWR 2-1 or less on all bands.

INPUT IMPEDANCE: 50 ohms unbalanced.

POWER INPUT: SSB — 1 kw average.
CW — 1 kw.

POWER OUTPUT: SSB: 1000 watts PEP with 40 db signal to distortion ratio; 1300 watts PEP with 35 db signal to distortion ratio.
CW: 600 watts with 1 kw input.

HARMONIC OUTPUT: 2nd harmonic at least 40 db down; all others at least 50 db down.

AUTOMATIC LOAD CONTROL: Up to 12 db.

NOISE: With 1 kw single tone input, signal-to-noise-and-hum ratio at least 40 db.

CONTROLS: Band Change, Multimeter, Filament, H. V., Bias Control, Tuning, Loading.

AMBIENT TEMPERATURE RANGE: +15° to +45°C.

AMBIENT HUMIDITY RANGE: To 90%.

ALTITUDE: To 6,000 ft.

PRIMARY POWER: 115 or 230 v ac 50/60 cps single phase, 3-wire neutral ground; 2000 watts max.

TUBE COMPLEMENT: 1 4CX1000A Power Amplifier, 2 866A H. V. Rectifier, 1 12AL5 ALC rectifier.

SIZE: 30⅝" H, 17" W, 16⅝" D.

WEIGHT: 160 lbs.

EQUIPMENT CONFIGURATIONS

The S/Line may be adapted to a number of different operating combinations. In addition to equipment in the new line itself, certain equipments in the KWM-1 System can also be incorporated.

transmitting

32S-1 Transmitter

32S-1 Transmitter 516F-2 Power Supply or 516F-1 P.S. + adapter cable

32S-1 Transmitter 30S-1 Linear Amplifier 516F-2 Power Supply or 516F-1 P.S. + adapter cable

receiving

75S-1 Receiver

75S-1 Receiver 312B-4 Speaker Console or 312B-2 Speaker Console

75S-1 Receiver 312B-3 Speaker or 312B-1 Speaker

Note: 516E-1 Power Supply will operate 32S/75S for mobile

transceiving

75S-1 Receiver 32S-1 Transmitter and accessories listed above

75S-1 Receiver 32S-1 Transmitter 30S-1 Linear Amplifier and accessories listed above

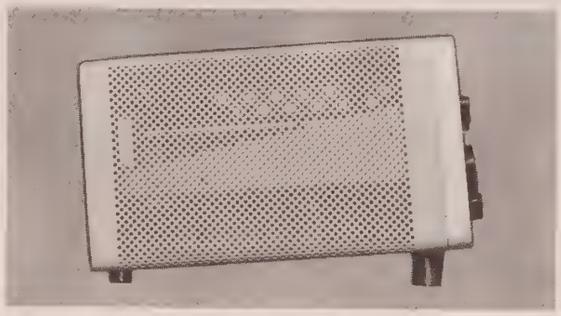
KWM-1 Transceiver 30S-1 Linear Amplifier and accessories listed above

312B-4

312B-3

516F-2

516E-1



S/Line Tilted Mounting

ACCESSORIES

312B-4 Speaker Console

The 312B-4 integrates the 32S-1, 75S-1 and accessories into an operating system.

It houses a speaker, an RF directional wattmeter with 200 and 2000 watt scales for measuring antenna and transmission line performance, a hybrid-type phone patch for voice-operated interconnection of the telephone line to transmitter and receiver, and several station control functions.

The FUNCTION switch provides three positions: one for NORMAL station operation; one for RECEIVE only, which disables the transmitter audio circuitry, and one for TRANSMIT ONLY, which disables the receiver and operates the transmitter VOX. The PHONE PATCH switch connects the telephone line to the radio equipment in the upper position, and disables both transmitter and receiver audio circuits in the lower position. SIZE: 7¾"H, 10"W, 12¼"D. WEIGHT: 8½ lbs.

312B-3 Speaker

Contains a 5" x 7" speaker and connecting cable. Attractively styled to match receiver and transmitter. SIZE: 7¾"H, 10"W, 8"D. WEIGHT: 4 lbs.

516F-2 AC Power Supply

Operates from 115 v ac, 50-60 cps. Provides all voltages for the 32S-1. SIZE: 7¾"H, 10"W, 12"D. WEIGHT: 28 lbs.

516E-1 DC Power Supply

Operates from 12 v dc. Provides all operating voltages for the 32S-1 and 75S-1 for mobile or portable operation. Transistorized for maximum efficiency and minimum maintenance. The 516E-2, a 28 v dc supply, may also be used. SIZE: 5¾"H, 11⅜"W, 7¾"D. WEIGHT: 12½ lbs.

YOUR AUTHORIZED COLLINS DISTRIBUTOR

One name stands out . . .

ELDICO

SSB EQUIPMENT

ELDICO pioneer in single sideband transmission equipment, has perfected two important basic transmitter components incorporating SSB facilities, making it possible for the radio amateur to assemble the finest transmitter complete or in two steps as desired.

Eldico equipment is designed for expansion. Start with 100 watts, add the kilowatt final when your requirements or your budget permits.

Only Eldico offers amateurs these significant advantages. Eldico equipment is designed for optimum performance for all modes of transmission. It is not designed primarily for SSB. It is designed for maximum performance on C.W., SSB or A.M. . . . with every operating provision for amateurs concentrating in any of these phases of ham radio. Consequently the amateur desiring to work all modes of transmission has in Eldico equipment the first completely versatile basic transmitter units.

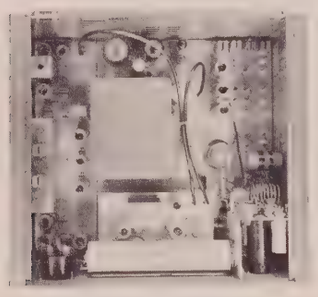
Only Eldico provides the amateur with a basic exciter which by itself is a complete 100-watt transmitter. Ideal for use by itself as an exciter for Eldico's power amplifier or any other, including home-built conventional triode or tetrode power amplifiers.

Only Eldico provides integral test equipment to insure optimum performance at all times.

All components are readily accessible for inspection and servicing if necessary.

Each piece of Eldico equipment is supplied complete with detailed instructions explaining theory of operation, circuitry and how to get maximum operating pleasure from your equipment. For those who enjoy operating primarily, putting your Eldico equipment on the air is a matter of minutes. For those who want to understand thoroughly the circuitry, detailed instructions include all basic engineering data.

And Eldico engineering prototypes are air tested where it counts . . . in the rough and tumble amateur operating contests conducted throughout the year. Under such well known calls, backed with potent proof-of-performance signals, K2AAA, W2BFY, and others, underscore the statement — For Signals of Distinction — buy Eldico.



ELDICO SSB-100F

All-band 100 watt basic exciter/transmitter completely self-contained. A potent rig by itself, a versatile exciter for Eldico's kilowatt linear ampifier or any power amplifier, commercial or home constructed.

GENERAL DESCRIPTION AND FEATURES

In addition to the most modern C.W. and A.M. circuitry the new SSB-100F 100 watt exciter/transmitter for single sideband emission employs a dual crystal lattice filter. The attenuation of the unwanted sideband is constant, without any further adjustments by the operator. The attenuation is greater than 50 db. The attenuation of the third order distortion products is greater than 35 db. Both the SSB-100F and the SSB-1000 are housed in receiver type cabinets and this combination provides a complete table-top kilowatt. On C.W. the keying characteristics are excellent — absolutely no chirps or clicks — as a result of grid-block keying and careful wave shaping.

The variable frequency oscillator, voice control, and receiver speaker muting are just a few of the more important features that are included in the design of the SSB-100F to provide efficient and effortless operation. The voice controlled oscilloscope continuously monitors the linearity of all R.F. stages and assures proper loading of the final amplifier. Typical of the importance paid to operating details is a front panel control that varies the output level of the calibrate signal, permitting the operator to instantly and positively zero-beat any desired signal regardless of its amplitude. Extreme flexibility is provided by instantaneously switching between A.M., C.W. and either lower or upper sideband. In addition the 100-watt final is completely band-switched. Pi-network output permits matching its output into a wide range of impedances. The SSB-100F is not only a complete 100 watt transmitter, with 500 kc VFO coverage of all bands 80 through 10 meters, but it is the ideal driver for any linear final including grounded grid amplifiers.

SPECIFICATIONS

Type of Emission: C.W. — A.M. — SSB

Power Ratings: DC average input SSB-100 watts; A.M. input (two tone test) — 60 watts. Peak envelope power input SSB-144 watts. Peak envelope power output SSB-100 watts.

Keying: Grid block, full break-in.

Harmonics and Spurious Responses: Spurious mixer products — 50 db or more down. Third order distortion products — 35 db or more down. TV interference suppression — 40 db or more second harmonic, 60 db or more higher harmonics.

Unwanted Sideband and Carrier Suppression: 50 db minimum attenuation, through low frequency crystal-lattice filter.

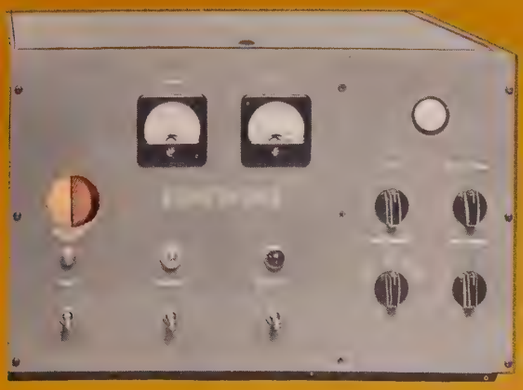
Frequency Stability: Control Oscillator — (800 to 1300 kc) ± 100 cycles after two minute warm up period. Output frequency — within 300 cycles after five minute warm up period. Dial accuracy ± 2 kc after calibration.

Factory wired and tested, standard RETMA warranty.

Frequency Range:
80m-3500 to 4000 kc
40m-7000 to 7300 kc
20m-14,000 to 14,350 kc
15m-21,000 to 21,450 kc
11m-26,900 to 27,400 kc
10m-28,000 to 30,000 kc

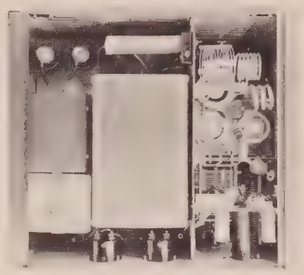
Tube Lineup: 22 tubes, including two rectifiers, two voltage regulators, one oscilloscope and one 5894 power amplifier.

NET PRICE TO THE AMATEUR **$795.00**



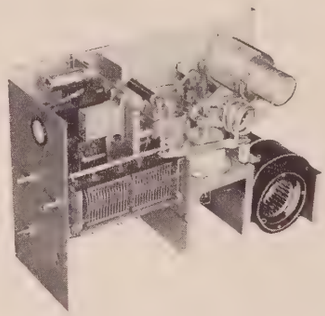
ELDICO SSB-1000

All-band one kilowatt table-top power amplifier completely self-contained. For use with Eldico SSB-100F transmitter/exciter or any other low power device capable of delivering 3 watts minimum P.E.P.



GENERAL DESCRIPTION AND FEATURES

The SSB-1000 is a full kilowatt table-top linear amplifier. It is housed in an identical cabinet to the Eldico SSB-100F making an ideal matching amplifier physically and electrically. The use of a pair of Eimac's 4X250B radial beam power tetrodes allows compactness with unusual high efficiency and dependability, together with excellent high-frequency characteristics. The high power sensitivity of these tubes makes class AB_1 operation feasible with no sacrifice in efficiency; yet with remarkably improved linearity. The SSB-1000 is completely self-contained with its own rugged power supply, adequate filtering and regulation through a swinging choke and a high-capacity oil filled condenser. A miniature rotary blower, whose operation is remarkably quiet, provides cooling of the 4X250B and linear amplifier, without the annoying background sounds normally associated with forced air cooling.



An internal oscilloscope continuously monitors the linearity by visual comparison of the input and output wave forms and assures proper loading and operation at all times. A single control provides band switching 80 through 10 meters. The pi-network output permits matching a wide range of impedances. Low drive requirements of only 3 watts P.E.P. permits operation of the SSB-1000 with any conventional SSB exciter. An attenuator is furnished to provide proper drive between the SSB-100F and the SSB-1000. Using this combination no compromise of A.M. — C.W. — SSB operation is required on any amateur band. With automatic switching, operation at either the 100 or 1000 watt level is at your command.

SPECIFICATIONS

Low Drive Requirement: 3 watts P.E.P. will drive to full kilowatt. *Pi-network Output:* Single knob bandswitch. High-efficiency silver-plated Pi-network output circuit. Matches wide range of antenna impedances.

High Harmonic Attenuation: High-Q plate and grid circuits and Pi-network output circuit provide maximum harmonic-attenuation.

Power Rating: DC Input C.W. 1000 watts
A.M. 700 watts

Peak Envelope Power:
Input SSB-1000 watts
Output SSB-625 watts

Frequency Range:

5 bands: 80m-3,500 to 4,000 kc
40m-7,000 to 7,300 kc
20m-14,000 to 14,350 kc
15m-21,000 to 21,450 kc
11/10m-26,000 to 30,000 kc

Factory wired and tested, standard RETMA warranty.

Tube Lineup: 9 tubes; two 866, two OA2, one OB2, one 6AU6, one 1CP1, two 4X250B.

NET PRICE TO THE AMATEUR **$745.00**

EE-3

Eldico's new electronic key, the EE-3, is designed to make fine c.w. operating as simple, as much fun as voice-operated phone break-in. In one electronic accessory are incorporated all the features to transform any ham into an effortless top-of-the-pack operator. The EE-3 in operation, is self-completing, once the key is actuated to either dot or dash position, a complete character and the space following is completed, perfectly proportioned, before the next command can be obeyed. This guarantees ideally formed characters. The self-completing feature makes it unnecessary to wait for a character to be completed before starting the next one, avoiding entirely poorly spaced or formed code.

More than a superior electronic key, the Eldico EE-3 is a c.w. control center. Provision is made for muting of the receiver audio while simultaneously providing a separate monitor tone controlled by an independent volume control. In its simplest installation keying is monitored by means of an integral loudspeaker, or through a headphone jack which disconnects the speaker. Provision is made to connect your communications receiver audio output to a terminal strip on the key. In this installation the receiver audio is heard through the electronic key loudspeaker or headphone jack. Operating the key, silences the receiver audio and in its place substitutes the keying tone. The keying tone may be altered to satisfy the personal taste of the operator and to avoid operating fatigue. Complete break-in is greatly simplified with this arrangement. To put c.w. operating on an entirely new plane of enjoyment you owe yourself the pleasure of using the Eldico EE-3 for signals of distinction.

SPECIFICATIONS

1. Characters complete before next command can be obeyed.
2. Small modern cabinet; 4" X 4½" X 7½".
3. Receiver muting and audio transfer to headphones.
4. Separate tone, volume and speed controls for 5 to 50 words per minute located on front panel. Weight, ratio and receiver muting threshold controls — located on rear of unit.
5. Self contained with transformer, Selenium Rectifier, 2 dual tubes, 2 extremely quiet relays and miniature speaker.

NET PRICE TO THE AMATEUR **$79.95**

AUTHORIZED ELDICO DISTRIBUTOR

ELDICO ELECTRONICS

29-01 BORDEN AVENUE, LONG ISLAND CITY, NEW YORK

TECHNICAL SPECIFICATIONS
FOR
MULTI-ELMAC
AF-68 — TRANS-CITER

EXCITER — PORTABLE TRANSMITTER

Designed as an exciter — speech amplifier, V.F.O., driver, or a complete low powered transmitter. This unit may be used for Under-Dash Mobile or wherever an all band V.F.O. transmitter is required. A single control bandswitches all stages simultaneously 80 through 6 Meters.

EMISSION

Type A-1 or A-3

SIX AMATEUR BANDS

3.50 — 4.00MC	21.00 — 21.45MC
7.00 — 7.30MC	28.00 — 29.70MC
14.00 —14.35MC	50.00 — 54.00MC

V.F.O. or CRYSTAL

A built-in temperature compensated V.F.O. operates on 1.75MC for the 80 meter band and on 3.5MC for all remaining bands. The V.F.O. dial is directly calibrated in megacycles for each band. The crystal oscillator is untuned and uses any crystal that will work straight through, double or quadruple to desired operating frequency. Crystal socket holds two (2) crystals. For 6 meter operation 6.25 - 6.75MC crystals are recommended.

CONTROLS

1. Bandswitch
2. Final Loading
3. Plate Tuning
4. Grid Drive
5. Power Switch
6. V.F.O. Spotting Switch
7. Meter Switch
8. V.F.O. Frequency Control
9. V.F.O. or Crystal Switch
10. Audio Gain
11. AM - CW Switch
12. High or Low impedance Microphone Switch

OUTPUT CIRCUIT

Uses coaxial connector and a universal PI matching network for a wide variety of impedance matching. Provisions for 40 watts of audio at 500 ohms to drive higher powered modulators, etc. plus means to obtain various combinations of output such as R.F. Driver, Buffer, V.F.O. These may be secured by various jumper combinations of pin terminals in 15 prong power plug located on rear apron.

METERING

A five (5) Circuit meter provides *illuminated* meter readings as follows:

1. Grid Current P.A. off
2. Grid Current P.A. on
3. Plate Voltage
4. Modulator Plate Current
5. Final Plate Current

POWER

A maximum of 60 watts input to the plate of final tube. A (15) prong plug is used so that the AF-68 can be operated from 6 or 12 volts DC by placing a jumper on appropriate pin terminals.

For maximum flexibility the AF-68 power input is arranged for one or two separate high voltage supplies; *500 volts @ 170 M.A. or 225 volts @ 60 M.A. This can be obtained from a single H.V. Supply by using dropping resistors.

*Any supply delivering 350 to 500 volts may be used.

TUBE LINE-UP

6146—Power Amplifier
6AQ5—Driver
6AG5—Multiplier
6AK6—Oscillator
OB2—Voltage Regulator
6AU6—Speech Amplifier
12AU7—Speech Driver
6L6GTB—Modulators

MECHANICAL

Cabinet Size: 13½" Wide — 6½" High — 7½" Deep
Weight: 18 lbs. (Approx.)
Finish: Charcoal with chrome trim.

PRICE (Amateur Net) — $205.00 — including all tubes and 15 prong power plug.

Manufactured by

MULTI-PRODUCTS COMPANY

21470 Coolidge Highway **Oak Park 37, Mich.**

FORM NO. M-153

Distributor

ELMAR ELECTRONICS
OAKLAND 7, CALIFORNIA
TEmplebar 4-3311 140 - 11th St.
W6TT W6DUB

THE BROADBAND TWINS

THE REVOLUTIONARY NEW 100V EXCITER-TRANSMITTER

NO TUNING (except VFO), uses famous CE BROADBAND system. PRECISION LINEAR VFO–1KC Calibration. Single Knob Bandswitch 80 thru 10. SSB–DSB–AM–PM–CW and FSK. RF Output adjustable 10 to 100 Watts PEP. Meter reads Watts Input, Amps Output and Carrier Suppression. 2" RF Scope. Speech Level and Load Mismatch Indicators. Audio Filter – Inverse Feedback – 50 db Carrier and Sideband Suppression.

PRICE $595.00

FAMOUS MODEL 600L BROADBAND LINEAR

NO TUNING CONTROLS – CE BROADBAND Couplers in HIGH EFFICIENCY CLASS AB^2 using single 813. Easily driven to 600 Watts PEP Input 160 thru 10 by a 20A or 100V. Built-In HEAVY DUTY POWER SUPPLY – 45 MFD PAPER Capacitor. Meter reads WATTS INPUT, GRID DRIVE, RF AMPS, and SWR. Completely shielded – TVI suppressed – parasitic free. REMEMBER there is LESS than ONE S UNIT difference between the 600L and a 2 KW PEP job.

PRICE $495.00

THESE MULTIPHASE EXCITERS PIONEERED AMATEUR SSB

20-WATT MULTIPHASE EXCITER MODEL 20A

Higher power SSB Exciter providing 20 watts output SSB, AM, PM and CW; bandswitching from 10 to 160 meters; switching SSB with or without carrier; double sideband AM; narrow band phase modulation; CW break-in; voice operated break-in and reduced harmonic TVI. Existing final usually can be operated in Class A, AB1, AB2 or B as a linear amplifier by applying proper bias with substantially reduced harmonic output. Magic Eye RF indicator shows carrier balance and maximum peak output, can be adjusted to show maximum undistorted output. Operating controls are same as Model 10-B with added Indicator Switch to change the Magic Eye RF indicator from Carrier Null to Monitor Maximum Peak Output, and a Level Control to adjust the Magic Eye deflection to show maximum undistorted peak output. Tubes: 3-12AT7, 1-12BH7, 1-6BA7, 2-6AG7, 1-6E5, 1-5U4G, 1-6AL5. Choice of Gray Table Model 14¾" w. x 8¾" h. x 10" d. cabinet with top access door, or Black or Gray Wrinkle Rack Model with 19" x 8¾" standard rack panel. State Choice.

Model 20A Multiphase Exciter – Wired and tested. Shipping Weight 35 lbs.
NET EACH $279.50

Model 20A Kit $219.50

MODEL 10B 10-WATT MULTIPHASE EXCITER

Provides 10 watts P.E.P. output SSB, DSB, AM, PM and CW. Features multi-band operation using plug-in coils. Existing amplifier may be operated in Class A, AB1, AB2 or B as a linear amplifier by applying proper fixed bias. Linear amplifier operation provides substantial reduction of harmonic output. Controls: Speech Level, Five-Position Modulation Selector (sideband 1 and 2, AM, PM and CW), Carrier Control, VFO-XTAL Switch, Operation Selector, Calibrate Level, Mixer and Amplifier tuning, and Power On-Off Switch. Plug-in Prealigned Phase Shift Network Model PS-1 included. Tubes: 3-12AT7, 1-6U8, 1-6BA7, 1-6AG7, 1-5U4G, 1-6AL5. Choice of Gray Table Model 14¾" wide x 8¾" high x 10" deep, or Gray or Black Wrinkle finish Rack Model with Standard rack panel 19" x 8¾" high. State Choice. Shipping Weight, 36 lbs.

Model 10B Multiphase Exciter – Wired and tested, with plug-in coils for one band (Please Specify), and instruction book.
NET EACH $179.50

Model 10B Kit – With plug-in prealigned phase shift network, color coded wiring harness, tubes and all parts. Complete building and aligning instructions, plug-in coils for one band (Please Specify).
NET EACH $139.50

WRITE FOR MORE DETAILED INFORMATION.

MULTIPHASE EQUIPMENT

Central Electronics, Inc.

1247 W. Belmont Ave. Chicago 13, Illinois

MULTIPHASE THE OVERWHELMING CHOICE OF HAMS EVERYWHERE

SUPERIOR GEAR - FROM THE SSB PIONEER

MODEL MM-2 – 3" RF analyzer scope for use on SSB–DSB–AM–PM and CW. MONITORS RECEIVED AND TRANSMITTED SIGNALS thru new electronic switching circuits. NO TUNING – BROADBAND response 1MC to 55MC at power levels of 5 watts to 5 KW. SIMPLE CONNECTIONS. Built-in 1KC oscillator for exciter alignment. Plug-in IF adapters available for 450-500 KC, 80 KC and 50 KC.

IF adapter RM-455 or RM-80 or RM-50 . . . . . $ 9.95
MM-2 (less adapter) wired 129.50
Kit 99.50

MODEL GC-1 – Gated Compression Amplifier. Connects between receiver and speaker. Automatically brings all received signals to same level – no blasting. Compensates for receiver AVC deficiencies. Compresses a 40 db increase in level to less than 3 db. Magic Eye continuously monitors compression value. Keep peace with your family and neighbors – buy a GC-1.

Kit $49.50
Wired 59.50

MODEL 458CP – DELUXE CASE AND FRONT PANEL for BC-458 VFO – an attractive gray wrinkle cabinet 5½" wide, 8¾" high and 13" deep with silk screened front panel and all holes drilled; matches models 10 and 20 Multiphase Exciters. Identical in size with the Sideband Slicer. Shipping weight 8 pounds.

PRICE $10.00

MODEL 458K – Complete Kit of parts to modify BC-458 into Bandswitched VFO for Multiphase Exciter. Includes DC oscillator filament supply and calibrated dial for operation on 160, 80, 40, 20, and 15 meters.

PRICE $17.50

MODEL 458-10 – xtal controlled converter package to extend 458 VFO into 10 metal band. For use with above 458 Conversion kits. Wired . . . . . $37.50 Kit $27.50

PLUG-IN COILS – For Model 10B, 160 to 10 meters; please specify band desired $3.95

MODEL QT-1 ANTI-TRIP UNIT – Plug-in accessory for Multiphase Exciters. Prevents noise or received signal from tripping the voice control $12.50

PICTURE-TUBE REJUVENATOR

MODEL RE-2 Rejuvatube – Tests for emission, gas and shorts. Cube-socket selector and switch assembly permit testing and rejuvenation of each gun of color tube, 110° and conventional monochrome tubes.

Kit . . . $59.50 Wired . . . $79.50

Cube socket CS-2 is available separately as an adapter for model RE-1 Rejuvatube $12.50

MODEL B SIDEBAND SLICER

Sideband Slicer featuring the built-in multi-phase "Q" Multiplier for greatly improved performance. Improves any receiver by cutting QRM in half. Utilizes the phase shift principle to provide selectable single sideband reception of SSB, AM, PM and CW signals. Can be connected to any communications receiver whose IF system is within the range of 450 to 500 kc. Other frequencies are available on special order. Three simple screwdriver adjustments place the unit in operating adjustment. No test equipment is needed. Self-contained transformer type power supply, 115 v., 60 cycle AC. Size 5½" x 8¾" x 13" deep. In gray wrinkle case. Shipping Weight 17 pounds. Instructions.

Model B Sideband Slicer $99.50

Model B Sideband Slicer Kit $69.50

Model A Sideband Slicer – Same as above but without Multiphase "Q" Multiplier. Wired $74.50

Model A Sideband Slicer Kit $49.50

AP-1A ADAPTER – For receivers having an IF in the range of 450 to 500 KC. Wired only. Shipping weight 1 lb. $9.95

AP CONVERTER ADAPTER (Specify Frequency) – For use with Model A or B, includes a crystal converter for use with receivers having an IF of 50, 75, 80, 85, 100, 262 and 915 KC. Complete with crystal, wired only. Shipping weight 2 pounds.
PRICE $12.50

MODEL AP-3 ADAPTER CABLE $3.50

AQ

DQ

DESK MODEL DQ "Q" MULTIPLIER

Desk Model "Q" Multiplier for use with any receiver having 450 to 500 kc IF. In attractive, compact case with connecting Power-IF cable. Power supplied by receiver. Also provides added selectivity and BFO in mobile SSB or CW reception.

Model DQ "Q" Multiplier – Wired $29.50

Model DQ "Q" Multiplier Kit $22.50

MODEL AQ CONVERTER

Converts Model A Slicer into a Model B. Plugs into the accessory socket of the slicer. New front panel and controls are provided to give all the advantages of "Q" Multiplier selectivity on SSB, AM and CW with your present Model A Slicer. Shipping weight 16 pounds. Wired $29.50

Model AQ Converter Kit $22.50

MODEL PS-1 PHASE SHIFT NETWORK

Available separately for home constructors. Sideband rejection 40 to 45 db over 225 to 2750 cps. Interchangeable in exciters or receiver adapters. Electrically identical to units described in GE Ham News for the SSB Jr. and Signal Slicer. With socket and diagram. Shipping weight 1 pound $8.95

EVANS RADIO
P. O. BOX 312
CONCORD, N. H.

"Trap-Master" Antennas by Mosley

Cut-away section of potted base coil.

Now! **MOBILE CONVENIENCE!** *3-Bands...No Bandswitching!*

MODEL MA-3 3-Band Mobile Whip Antenna for 10, 15 and 20 meter bands functions without switches, sliding contacts or other mechanical devices. Use with standard base loading coils for 40 and 80. An overall length of 7' 8 1/8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Coils are moisture-proofed for consistent all-weather operation. Traps enclosed in polished aluminum cover with slim profile for low wind resistance. Anti-sway design improves signal stability while "in motion". Stainless steel whip sections. Base stud, 3/8"–24, fits standard mounts. Shipping weight, 6 lbs

Model MA-3 **$19.95**

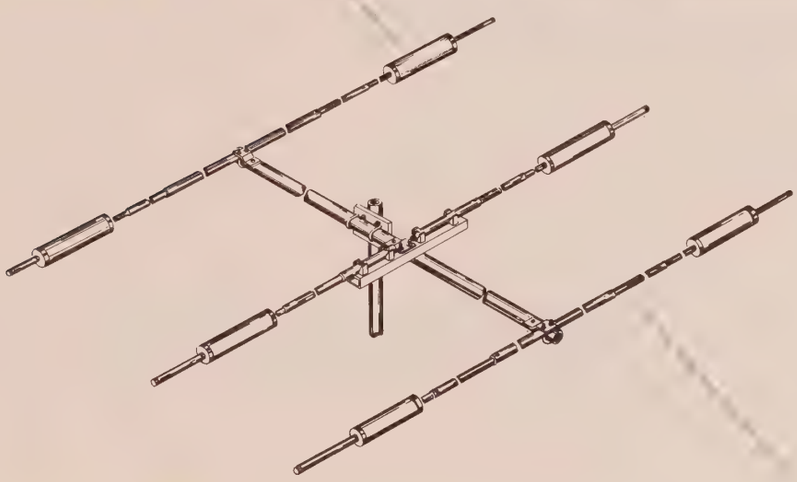
TRAP

- *3 Bands– No band switching!*
- *No mechanical devices or relays!*
- *Low wind resistance–anti-sway design!*
- *Lifetime stainless steel construction!*
- *Use for 40-80 with Base Loading Coil!*
- *No adjusting required!*

Designed specifically for low and medium power transmitters... 300 watts or less!

"Trap-Master" 'JUNIOR'

2 & 3 element arrays for 10-15-20 meters

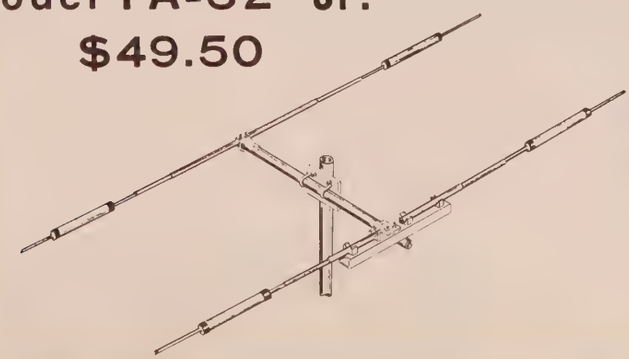


MODEL TA-33 Junior Here's "Trap-Master" performance and "Trap-Master" quality at reduced price for Hams who run reduced power. Rated to handle 300 watts, AM, the "Junior" has all the fine constructional qualities of the famed TA-33 but you don't pay for power rating you cannot use! Up to 8 db. forward gain with 25 db., or better, front-to-back will give your rig real "authority" on the bands. SWR is usually less than 1.5/1 at resonant frequencies and is remarkably flat across full width of each band. Boom is 1¼" OD x 12'. Max. element length, 26' 8". Turning radius of beam is 14' 9". Wind load is 86 lbs. Assembled weight, 20 lbs. Shipping weight, 28 lbs.

Model TA-33 "Jr." $69.50

2-Element "Trap-Master" Junior 5.5 db. gain with 20 db. front-to-back. Weighs just 14 lbs. with turning radius of 13' 9". Boom is 6' long and maximum element length is 26' 8". 62 lbs. wind load. Shipping weight only 22 lbs.

Model TA-32 "Jr." $49.50



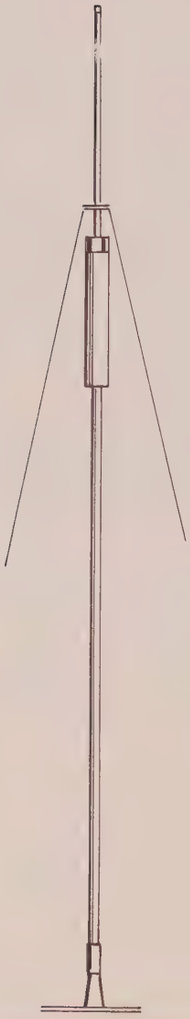
This cut-away view shows the "slim profile" trap precision wound with No. 16 tinned copper wire. Used on both Mobile and "Junior" models.

"Trap-Master" Antennas by

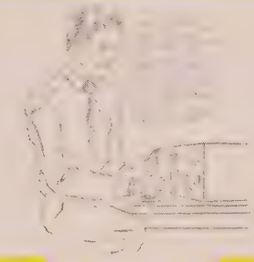
Mosley

VERTICALS for 10-15-20M

1 KW or 300 WATTS



- ☆ Low SWR!
- ☆ 61ST6 Aluminum!
- ☆ Weather-proof Traps!
- ☆ Compact...Low Windload!
- ☆ Requires Short Radials!
- ☆ Automatic Bandswitching!



MODEL V-3. 3-Band Vertical for 10, 15 and 20 meters. Rated to a full KW. Automatic bandswitching and low angle radiation. Maintains an electrical quarter wavelength over entire bandwidth. Aluminum trap cover, sealed with polyethylene cap, provides positive weather and dirt protection for coils. Ground system requires only short radials. No tuning or adjusting needed. 61ST6 aluminum construction. 11' 6" from base to tip and weighs just 4 lbs. Complete with baseplate, guy line, necessary hardware and instructions. Shipping wt., 8 lbs.

Model V-3 **$22.95**

MODEL V-3 Jr. Similar to model V-3, shown on left, but "Junior" is rated to only 300 Watts (A.M.). An ideal antenna for Hams working low or medium power transmitters. An electrical quarter wavelength covers all three bands, 10, 15 and 20 meters. 61ST6 aluminum construction, weather-proof traps . . . all the fine features found in "Trap-Master" design have been incorporated in this "Junior" model. No tuning or adjusting. Requires only short radials. Overall height, 11' 9"; weight only 2 lbs. Comes complete with base plate, guy lines, hardware and instructions. Shipping weight, 6 lbs.

Model V-3 "Jr." **$17.95**

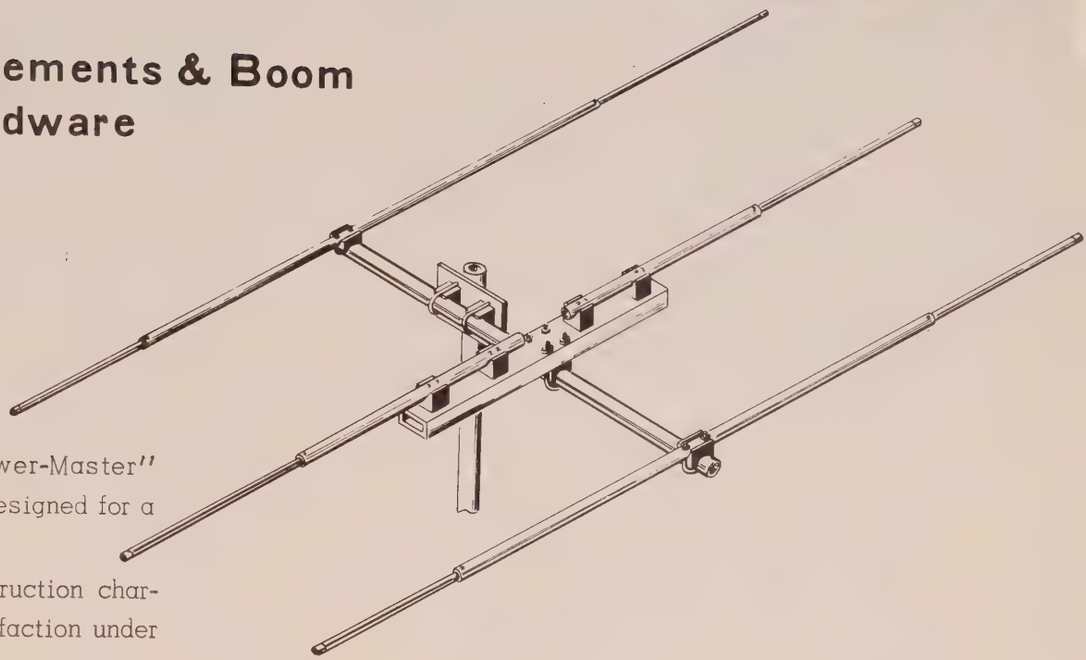
DISTRIBUTED BY:

Mosley Electronics, Inc.
8622 ST. CHARLES ROCK ROAD, ST. LOUIS 14, MISSOURI

Form No. CS-2 Litho. in U.S.A.

Mosley

61ST6 Aluminum Elements & Boom
Stainless Steel Hardware
Full Size Beams
8.9db Gain



MODELS A-310, 315 & 320. "Power-Master" Beams are full sized arrays, each designed for a single band—10, 15 or 20 meter.

Superlative performance and construction characterizes each beam to insure satisfaction under the most adverse conditions.

"Power-Master" Antennas are 100% rust-proof—stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom provide many additional years of trouble-free operation.

Low SWR over entire bandwidth. 8.9db gain on all bands with an operating capacity well over 1KW. "Power-Master" is fed with 52 ohm coax using the famous Mosley Match.

Power Master
ANTENNAS

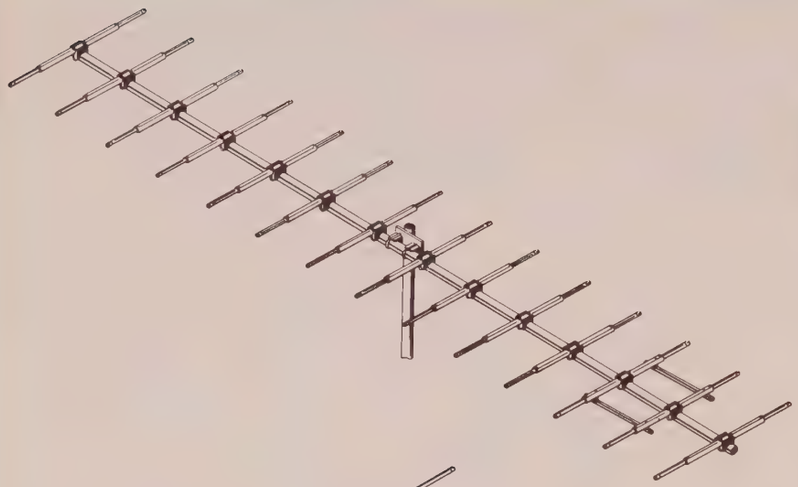
MODEL A-310 *3 Elements–10 Meters*	$37.50
Forward Gain	8.9 db
Front-to-Back	28 db
SWR	1.1/1
Max. Element Lgth.	15' 3"
Boom	12' X 1¼"OD X.058
Turning Radius	11' 1"
Wind Load	69 Lbs.
Assembled Wt.	25 Lbs.
Shipping Wt.	33 Lbs.

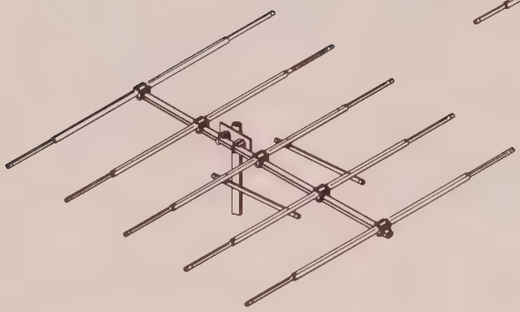
MODEL A-315 *3 Elements–15 Meters*	$42.50
Forward Gain	8.9 db
Front-to-Back	28 db
SWR	1.1/1
Max. Element Lgth.	17' 8"
Boom	12' X 1¼" OD X.058
Turning Radius	13' 2"
Wind Load	87 Lbs.
Assembled Wt.	26 Lbs.
Shipping Wt.	34 Lbs.

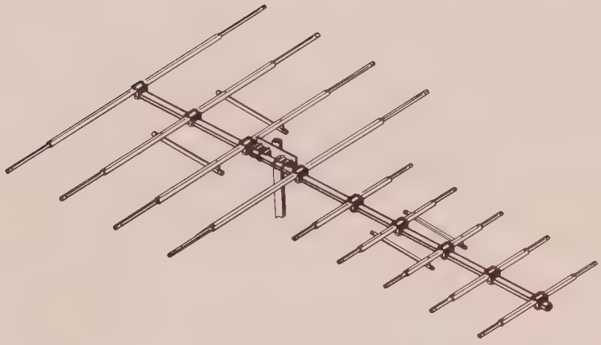
MODEL A-320 *3 Elements–20 Meters*	$77.25
Forward Gain	8.9 db
Front-to-Back	25 db
SWR	1.1/1
Max. Element Lgth.	35' 4"
Boom	14' X 1½" OD X.125
Turning Radius	18' 9"
Wind Load	200 Lbs.
Assembled Wt.	34 Lbs.
Shipping Wt.	40 Lbs.

VHF — Power Master ANTENNAS

Mosley Electronics, Inc.
8622 ST. CHARLES ROCK ROAD, ST. LOUIS 14, MISSOURI







MODEL A-142
14 Elements- 2 Meter — $48.75

Forward Gain	13db
Front-to-Back	20db
SWR	1.1
Max. Element Length	3' 5"
Boom	1¼" x .058" x 12'
Turning Radius	6' 5"
Wind Load	37 lbs.
Assembled Weight	11½ lbs.

MODEL A-56
5 Elements- 6 Meter — $41.95

Forward Gain	11db
Front-to-Back	20db
SWR	1.1
Max. Element Length	9' 8¾"
Boom	1¼" x .058" x 12'
Turning Radius	8' 5"
Wind Load	38 lbs.
Assembled Weight	11½ lbs.

MODEL A-2N6
5 Elements-2 Meter plus 4 Element- 6 Meter — $67.05

	Two	Six
Forward Gain	11.4db	9.6db
Front-to-Back	11.5db	16.3db
SWR	1.1	1.1
Max. Element Length	3' 5"	8'
Boom	1½" x .125" x 14'	
Turning Radius	8' 9"	
Wind Load	50 lbs.	
Assembled Weight	20 lbs.	

MOSLEY "POWERMASTER" VHF ANTENNAS are a unique combination of rugged construction with superlative performance. They are built to withstand the fury of gale winds and the relentless weight of snow or ice.

Mosley "Powermaster" VHF antennas are 100% rust proof! When Mosley Antenna Coat, supplied, is used as directed they are 100% corrosion proof! Stainless steel hardware, high impact polystyrene insulators and clamping blocks with 61ST6 aluminum elements and boom are other extra features of these antennas.

Mosley "Powermaster" VHF antennas are the only VHF antennas with a five year guarantee against damage from wind, snow, ice or other natural hazards directly effecting the antenna !

MOSLEY STACKING KITS

Mosley Stacking Kits are available for use with antenna models A-142 and A-56.

Model SK-6 For use with antenna model A-56. Antennas may be stacked for vertical or horizontal polarization. 3db additional gain is realized by the use of this array over a single bay.

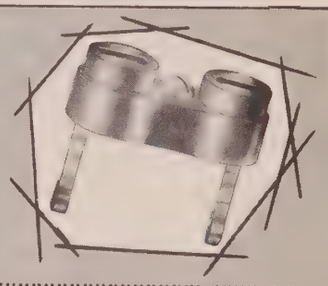
$32.75

Model SK-2 For use with antenna model A-142. Antennas may be stacked for vertical or horizontal polarization. 3db additional gain is realized by the use of this array over a single bay.

$23.75

Mosley AMATEUR RADIO ACCESSORIES

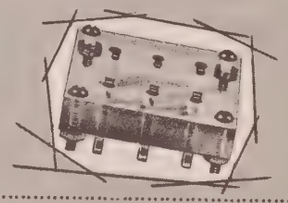
CRYSTAL HOLDER SOCKETS and ADAPTERS



SINGLE CRYSTAL HOLDER SOCKET

Compact, sturdy socket for holders with standard .095" pins spaced .486 to ½". Molded of high temperature polystyrene. Recessed phosphor bronze contacts and solder lugs are one piece for quiet operation under conditions of extreme vibration. Ideal for mobile rigs. Mounts behind panel or under chassis up to 1/8" thick with plated brass machine screw, supplied. Drilling template furnished.

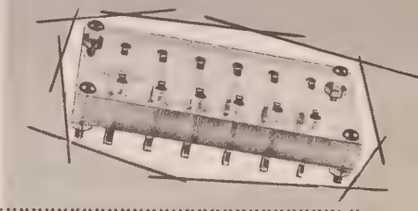
Type 500 — Amateur Net $ .22



3-GANG MULTI-SOCKET

Use with 3-position selector switch to provide rapid frequency shift in crystal controlled transmitters. Will accomodate three crystal holders with .095" pins spaced .486 to ½". Also mates with type 301 plug to permit use in many other low voltage circuits. Precision made of low loss acrylic plastic with one-piece phosphor bronze contacts and solder lugs. Supplied with four plated brass machine screws for mounting on chassis or panel.

Type 53 — Amateur Net $ .68



6-GANG MULTI-SOCKET

This one-piece acrylic plastic socket makes provision for six crystal holders with .095" diameter pins spaced .486 to ½". Ideal for mobile as well as fixed station transmitters. Sockets will also take type 301 plug for use in many other low voltage circuits. One-piece phosphor bronze contacts and solder lugs. Supplied with four plated brass machine screws for chassis or panel mounting.

Type 56 — Amateur Net $1.31

STANDARD CRYSTAL HOLDER ADAPTERS

3/4" to .486 - ½". Takes crystal holder with pins spaced 3/4" and plugs into socket having ½" spaced holes. Fits octal socket and Mosley crystal sockets described above. Acrylic body with plated brass pins.

Type 75-5 — Amateur Net $ .37

1/2" to 3/4" Takes crystal holder with pins spaced .486 to ½" and plugs into socket with 3/4" spaced holes. Also fits any 5 or 6 pin tube socket. Precision machined acrylic body with plated brass pins.

Type 5-75 — Amateur Net $ .37

5S-75 Same as 5-75 except takes crystal holder with .050" pins with .485" spacing.

Type 5S-75 — Amateur Net $ .37

5-5S Adapts crystal with .093" pins with .485" spacing to socket that accepts .050" pins with .485" spacing.

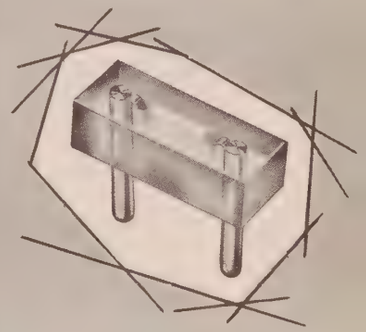
Type 5-5S — Amateur Net $ .37

5S-5 Adapts crystal with .050" pins with .485" spacing, to socket that accepts .093" pins with .485" spacing.

Type 5S-5 — Amateur Net $ .37

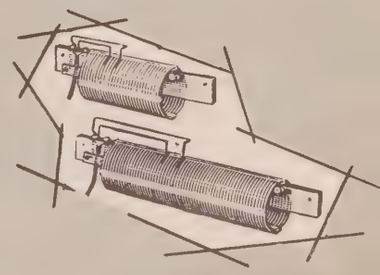
2-5S Adapts midget crystal with .017" wire leads - spaced .192", to socket that accepts .050" pins spaced .485".

Type 2-5S — Amateur Net $ .37



Many special crystal holder adapter types for marine, air and other communication service applications have been supplied by Mosley. We are equipped to design and fabricate adapters and similar devices for a wide variety of uses. Your inquiry is invited and quotations on quantity requirements will be promptly submitted.

DIPOLE LOADING COILS

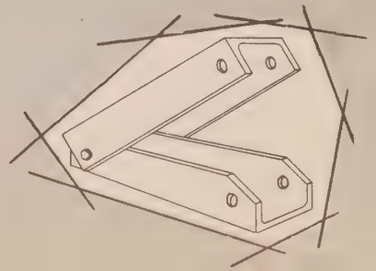


Make a high performance dipole transmitting and receiving antenna at about one-half the length of the full size dipole! 80 meter antenna is approximately 65' overall - 40 meter antenna, just 37'. Only one coil needed for each antenna. Feed with either 52 or 75 ohm coax to help suppress TVI and BCI. Heavy acrylic support bar takes strain off coil. Sturdy clamping member at coax connection point assures permanent connection. Coils are space-wound with plated No. 12 copper wire and are rated to 1 kw.

Type 40-D — Amateur Net $7.95

Type 75/80-D — Amateur Net $7.95

TILTING HEAD



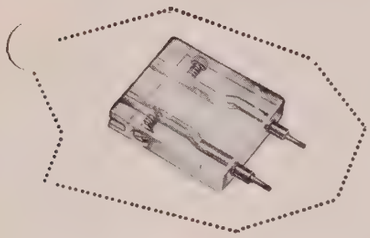
Permits you to tune, adjust, repair or assemble your rotary beam antenna "on the mast". Tilts boom into vertical position - bringing elements within easy reach. Works with all Mosley beams and with most other types. Available separately, as listed here, or with any Mosley beam. To order antenna with Tilting Head, add (-T) to Beam Model Number and $13.36 to Beam Net Price.

Type 10-T — Amateur Net $13.36

TRANSMISSION LINE PLUG

Handy 300 ohm line plug fits Mosley Crystal Holder Socket and octal tube socket. Clear polystyrene, plated brass pins and set screws. Solderless.

Type 301 — Amateur Net $ .19



SPECIAL SMALL PIN PLUG

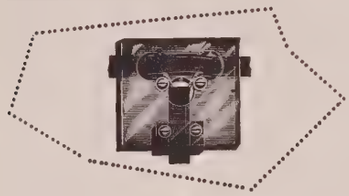
Fits small pin crystal socket. Here is a handy, solderless male connector that will find a multitude of uses in the Ham Shack. Owners of Viking 2 transmitters can use this plug in connection with the antenna relay socket provided at the rear of this rig. Plug pins, of plated brass, are .050" diameter, spaced .486". Large head plated brass set screws hold wires securely without soldering. Plug body is precision molded clear polystyrene.

Type 301-S — Amateur Net $ .19

DIPOLE ANTENNA CONNECTOR

Solderless strain-relief type center connector makes it easy to construct your own folded dipole receiving and transmitting antenna. Sturdy, low loss acrylic plastic with plated brass machine screws. For use with standard 300 ohm flat line.

Type 261 — Amateur Net $ .37



"HEAVY DUTY" DIPOLE ANTENNA CONNECTOR

Similar to Type 261, shown above, but intended for use with heavier copperweld Type 300 ohm transmission line. Extra heavy acrylic plastic body with sturdy clamping member for strain relief. Plated brass machine screws. Ideal for Ham antennas.

Type 262 — Amateur Net $ .53

DIPOLE END INSULATOR

Especially designed antenna end insulator for use with folded dipole type antenna made with standard 300 ohm transmission line. Sturdy, low loss acrylic plastic. Plated brass machine screw and washer holds wires securely and eliminates need for soldering. No strain on connection. 4-3/8" long.

Type 251 — Amateur Net $ .32

"HEAVY DUTY" END INSULATOR

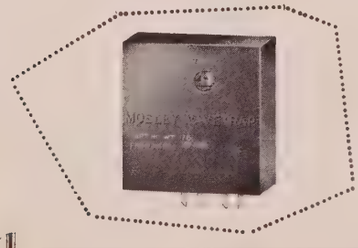
Similar to Type 251, shown above, except designed for use with heavier copperweld Type 300 ohm line. An extra clamping member is added to help hold line and take strain off connection. Ideal for Ham dipoles, 4-5/8" long.

Type 252 — Amateur Net $ .43

ANTENNA COAT and SOLVENT

Give your rotary beam antenna longer service life by applying new Mosley ANTENNA COAT to elements, boom, hardware, etc. Protects ferrous and non-ferrous metal surfaces from corrosive action of salt-laden air, chimney fumes and weather. ANTENNA COAT is an epoxy compound that forms a tough, clear protective film over the surface to which it is applied. It is easy to use - can be brushed or sprayed on. When mixed together, contents of package make ½ pint of compound, enough to coat any one Mosley rotary beam or several TV antennas. Use No. E-46 Solvent to clean spray or brush.

Type E-101 — Amateur Net $2.05
Type E-46 — Amateur Net $ .73
Antenna Coat Solvent (½ pint can)



WAVE TRAPS

Tunable wave traps to help "knock out" TVI and BCI. High Q series resonant type may be used on any receiver input, 50 to 600 ohms, balanced or unbalanced. Solderless, easy to install, choose type whose range includes frequency of interfering station.

WT-7	6.8 - 8.5 mcs.	Amateur Net $2.89	WT-41	27 - 55 mcs.	Amateur Net 2.89
WT-14	13.8 - 16 mcs.	2.89	WT-78	47 - 110 mcs.	2.89
WT-21	16 - 28 mcs.	2.89	WT-165	100 - 230 mcs.	2.89

M·E·I

MOSLEY ELECTRONICS, INCORPORATED
4610 North Lindbergh Boulevard
Bridgeton, Missouri

INTERNATIONAL DIVISION
15 Moore Street
New York 4, New York

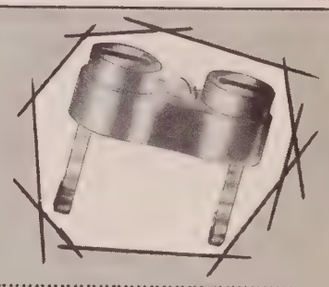
WEST COAST BRANCH
1406-08 South Grand Avenue
Los Angeles 15, California

FORM NO. ARA-1

LITHO IN U.S.A.

Mosley AMATEUR RADIO ACCESSORIES

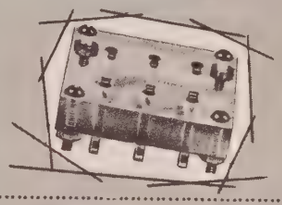
CRYSTAL HOLDER SOCKETS and ADAPTERS



SINGLE CRYSTAL HOLDER SOCKET

Compact, sturdy socket for holders with standard .095" pins spaced .486 to ½". Molded of high temperature polystyrene. Recessed phosphor bronze contacts and solder lugs are one piece for quiet operation under conditions of extreme vibration. Ideal for mobile rigs. Mounts behind panel or under chassis up to 1/8" thick with plated brass machine screw, supplied. Drilling template furnished.

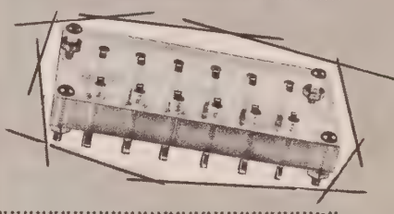
Type 500 — Amateur Net $ .22



3-GANG MULTI-SOCKET

Use with 3-position selector switch to provide rapid frequency shift in crystal controlled transmitters. Will accomodate three crystal holders with .095" pins spaced .486 to ½". Also mates with type 301 plug to permit use in many other low voltage circuits. Precision made of low loss acrylic plastic with one-piece phosphor bronze contacts and solder lugs. Supplied with four plated brass machine screws for mounting on chassis or panel.

Type 53 — Amateur Net $ .68



6-GANG MULTI-SOCKET

This one-piece acrylic plastic socket makes provision for six crystal holders with .095" diameter pins spaced .486 to ½". Ideal for mobile as well as fixed station transmitters. Sockets will also take type 301 plug for use in many other low voltage circuits. One-piece phosphor bronze contacts and solder lugs. Supplied with four plated brass machine screws for chassis or panel mounting.

Type 56 — Amateur Net $1.31

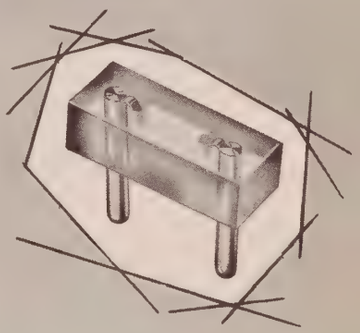
STANDARD CRYSTAL HOLDER ADAPTERS

3/4" to .486 - ½". Takes crystal holder with pins spaced 3/4" and plugs into socket having ½" spaced holes. Fits octal socket and Mosley crystal sockets described above. Acrylic body with plated brass pins.

Type 75-5 — Amateur Net $ .37

1/2" to 3/4" Takes crystal holder with pins spaced .486 to ½" and plugs into socket with 3/4" spaced holes. Also fits any 5 or 6 pin tube socket. Precision machined acrylic body with plated brass pins.

Type 5-75 — Amateur Net $ .37



5S-75 Same as 5-75 except takes crystal holder with .050" pins with .485" spacing.

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Many special crystal holder adapter types for marine, air and other communication service applications have been supplied by Mosley. We are equipped to design and fabricate adapters and similar devices for a wide variety of uses. Your inquiry is invited and quotations on quantity requirements will be promptly submitted.

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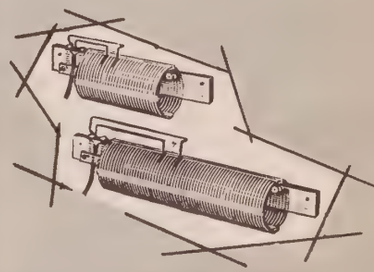
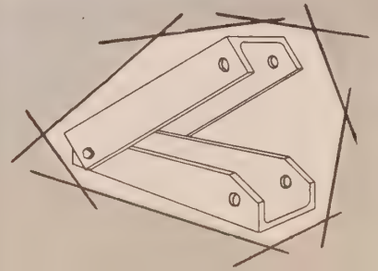


Make a high performance dipole transmitting and receiving antenna at about one-half the length of the full size dipole! 80 meter antenna is approximately 65' overall - 40 meter antenna, just 37'. Only one coil needed for each antenna. Feed with either 52 or 75 ohm coax to help suppress TVI and BCI. Heavy acrylic support bar takes strain off coil. Sturdy clamping member at coax connection point assures permanent connection. Coils are space-wound with plated No. 12 copper wire and are rated to 1 kw.

Type 40-D — Amateur Net $7.95

Type 75/80-D — Amateur Net $7.95

TILTING HEAD



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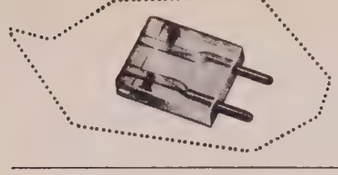

TRANSMISSION LINE PLUG

Handy 300 ohm line plug fits Mosley Crystal Holder Socket and octal tube socket. Clear polystyrene, plated brass pins and set screws. Solderless.

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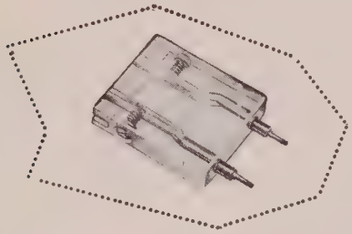

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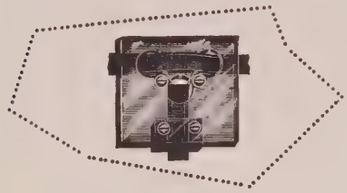

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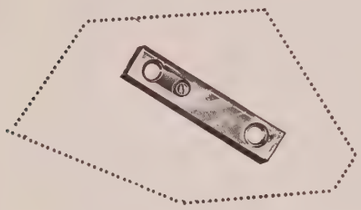

DIPOLE END INSULATOR

Especially designed antenna end insulator for use with folded dipole type antenna made with standard 300 ohm transmission line. Sturdy, low loss acrylic plastic. Plated brass machine screw and washer holds wires securely and eliminates need for soldering. No strain on connection. 4-3/8" long.

Type 251 — Amateur Net $ .32

"HEAVY DUTY" END INSULATOR

Similar to Type 251, shown above, except designed for use with heavier copperweld Type 300 ohm line. An extra clamping member is added to help hold line and take strain off connection. Ideal for Ham dipoles, 4-5/8" long.

Type 252 — Amateur Net $ .43

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Antenna Coat Solvent (½ pint can)

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M·E·I

MOSLEY ELECTRONICS, INCORPORATED
4610 North Lindbergh Boulevard
Bridgeton, Missouri

INTERNATIONAL DIVISION
15 Moore Street
New York 4, New York

WEST COAST BRANCH
1406-08 South Grand Avenue
Los Angeles 15, California

FORM NO. ARA-1

LITHO IN U.S.A.

"Trap-Master" Antennas by Mosley

Cut-away section of potted base coil.

Now! MOBILE CONVENIENCE! *3-Bands...No Bandswitching!*

MODEL MA-3 3-Band Mobile Whip Antenna for 10, 15 and 20 meter bands functions without switches, sliding contacts or other mechanical devices. Use with standard base loading coils for 40 and 80. An overall length of 7' 8 1/8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Coils are moisture-proofed for consistent all-weather operation. Traps enclosed in polished aluminum cover with slim profile for low wind resistance. Anti-sway design improves signal stability while "in motion". Stainless steel whip sections. Base stud, 3/8"–24, fits standard mounts. Shipping weight, 6 lbs

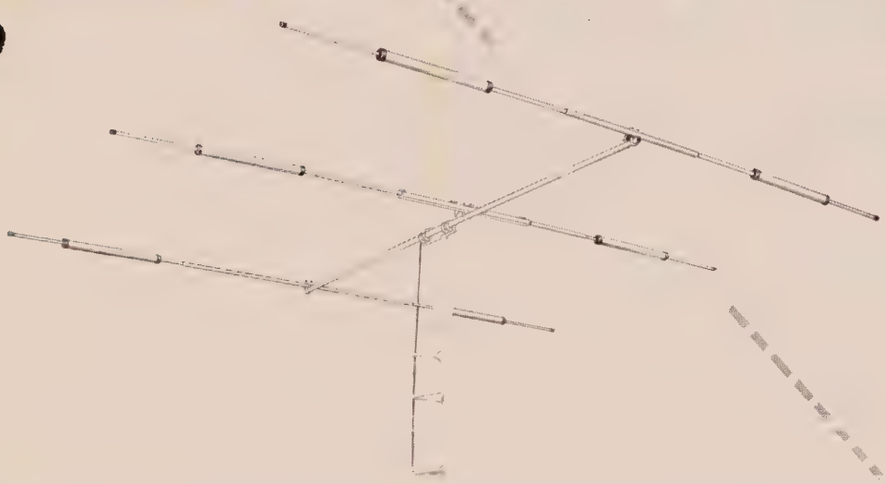
Model MA-3 $19.95

- *3 Bands– No band switching!*
- *No mechanical devices or relays!*
- *Low wind resistance–anti-sway design!*
- *Lifetime stainless steel construction!*
- *Use for 40-80 with Base Loading Coil!*
- *No adjusting required!*

Designed specifically for low and medium power transmitters... 300 watts or less!

"Trap-Master" 'JUNIOR'

2 & 3 element arrays for 10-15-20 meters

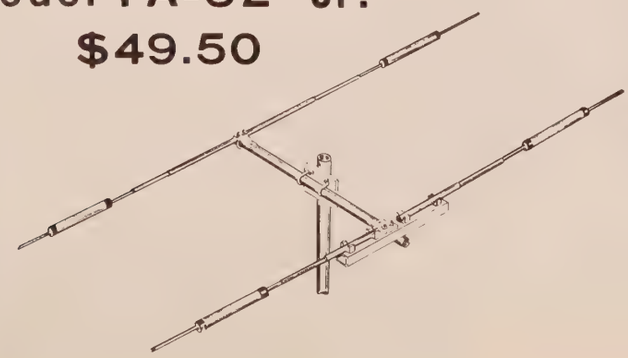


MODEL TA-33 Junior Here's "Trap-Master" performance and "Trap-Master" quality at reduced price for Hams who run reduced power. Rated to handle 300 watts, AM, the "Junior" has all the fine constructional qualities of the famed TA-33 but you don't pay for power rating you cannot use! Up to 8 db. forward gain with 25 db., or better, front-to-back will give your rig real "authority" on the bands. SWR is usually less than 1.5/1 at resonant frequencies and is remarkably flat across full width of each band. Boom is 1¼" OD x 12'. Max. element length, 26' 8". Turning radius of beam is 14' 9". Wind load is 86 lbs. Assembled weight, 20 lbs. Shipping weight, 28 lbs.

Model TA-33 "Jr." $69.50

2-Element "Trap-Master" Junior 5.5 db. gain with 20 db. front-to-back. Weighs just 14 lbs. with turning radius of 13' 9". Boom is 6' long and maximum element length is 26' 8". 62 lbs. wind load. Shipping weight only 22 lbs.

Model TA-32 "Jr." $49.50



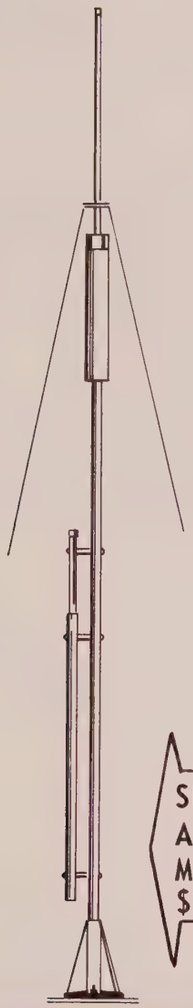
This cut-away view shows the "slim profile" trap precision wound with No. 16 tinned copper wire. Used on both Mobile and "Junior" models.

"Trap-Master" Antennas by

Mosley

VERTICALS for 10-15-20M

1 KW or 300 WATTS



- ☆ *Low SWR!*
- ☆ *61ST6 Aluminum!*
- ☆ *Weather-proof Traps!*
- ☆ *Compact...Low Windload!*
- ☆ *Requires Short Radials!*
- ☆ *Automatic Bandswitching!*

SIX METER
ADAPTOR KIT
Model AK-6
$2.90

MODEL V-3. 3-Band Vertical for 10, 15 and 20 meters. Rated to a full KW. Automatic bandswitching and low angle radiation. Maintains an electrical quarter wavelength over entire bandwidth. Aluminum trap cover, sealed with polyethylene cap, provides positive weather and dirt protection for coils. Ground system requires only short radials. No tuning or adjusting needed. 61ST6 aluminum construction. 11' 6" from base to tip and weighs just 4 lbs. Complete with baseplate, guy line, necessary hardware and instructions. Shipping wt., 8 lbs.

Model V-3 **$22.95**

MODEL V-3 Jr. Similar to model V-3, shown on left, but "Junior" is rated to only 300 Watts (A.M.). An ideal antenna for Hams working low or medium power transmitters. An electrical quarter wavelength covers all three bands, 10, 15 and 20 meters. 61ST6 aluminum construction, weather-proof traps . . . all the fine features found in "Trap-Master" design have been incorporated in this "Junior" model. No tuning or adjusting. Requires only short radials. Overall height, 11' 9"; weight only 2 lbs. Comes complete with base plate, guy lines, hardware and instructions. Shipping weight, 6 lbs.

Model V-3 "Jr." **$17.95**

DISTRIBUTED BY:

Mosley Electronics, Inc.
4610 N. LINDBERGH BLVD., BRIDGETON, MISSOURI

Form No. CS-2 - A Litho. in U.S.A.

VHF — Power Master ANTENNAS

Mosley Electronics, Inc.
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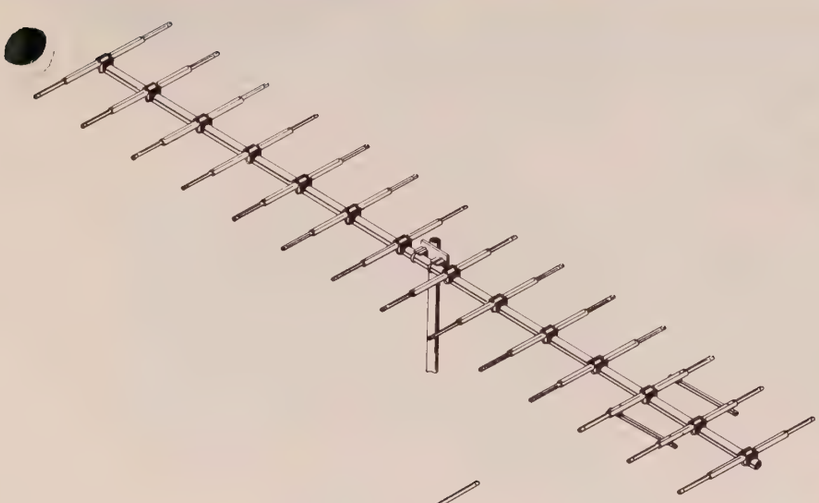
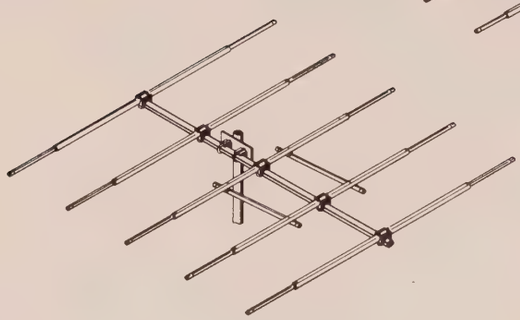
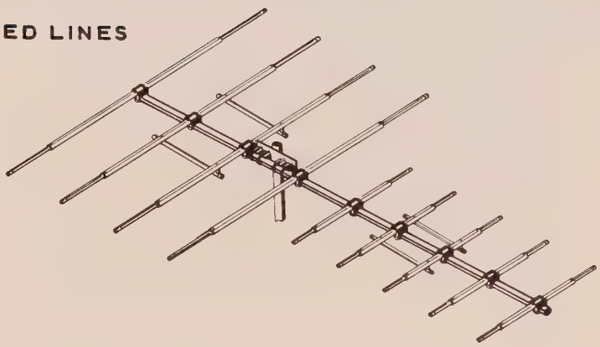




USES 2 FEED LINES



- 100% RUST PROOF!
- 100% CORROSION PROOF!*
- 5 YEAR GUARANTEE against loss or damage due to weather!

* When Mosley Antenna Coat, supplied, is used as directed.

MODEL A-142
14 Elements- 2 Meter — $48.75

Forward Gain	15db
Front-to-Back	20db
SWR	1.1
Max. Element Length	3' 5"
Boom	1¼" x .058" x 12'
Turning Radius	6' 5"
Wind Load	37 lbs.
Assembled Weight	11½ lbs.

MODEL A-56
5 Elements- 6 Meter — $41.95

Forward Gain	11db
Front-to-Back	20db
SWR	1.1
Max. Element Length	9' 8¾"
Boom	1¼" x .058" x 12'
Turning Radius	8' 5"
Wind Load	38 lbs.
Assembled Weight	11½ lbs.

MODEL A-2N6
5 Elements-2 Meter plus 4 Element- 6 Meter — $67.05

	Two	Six
Forward Gain	11.4db	9.6db
Front-to-Back	11.5db	16.3db
SWR	1.1	1.1
Max. Element Length	3' 5"	8'
Boom	1½" x .125" x 14'	
Turning Radius	8' 9"	
Wind Load	50 lbs.	
Assembled Weight	20 lbs.	

MOSLEY "Power Master" VHF Antennas combine superlative performance with the most rugged construction to be found in any VHF antenna for amateur use. Element sections are 5/8" OD and 1/2" OD establishing an extremely low ratio of length-to-diameter. All metal hardware is stainless steel or other rust-proof material. The element-to-boom clamping blocks are of high-impact polystyrene and are self-aligning. A unique matching stub permits antenna to be fed with 52 or 72 ohm coax or with 104 or 300 ohm open line or flat line. Low VSWR over broad bandwidth is maintained.

MOSLEY STACKING KITS

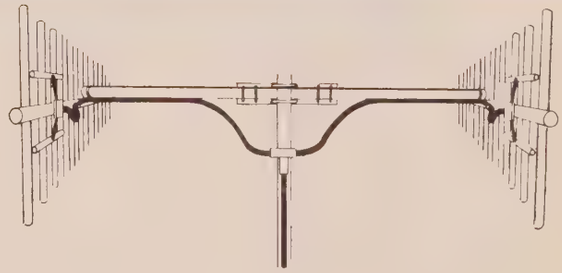
Mosley Stacking Kits are available for use with antenna models A-142 and A-56.

Model SK-6 For use with antenna model A-56. Antennas may be stacked for vertical or horizontal polarization. 3db additional gain is realized by the use of this array over a single bay.

$32.75

Model SK-2 For use with antenna model A-142. Antennas may be stacked for vertical or horizontal polarization. 3db additional gain is realized by the use of this array over a single bay.

$23.75



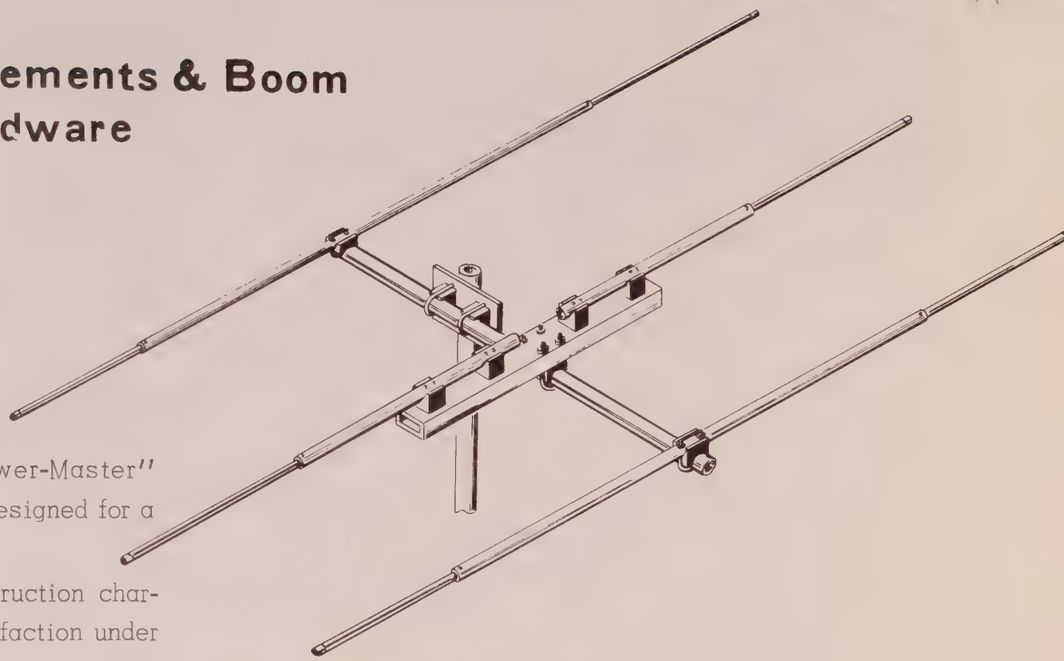
DISTRIBUTED BY :

FORM NO. CS-3

LITHO IN U.S.A.

Mosley

61ST6 Aluminum Elements & Boom
Stainless Steel Hardware
Full Size Beams
8.9db Gain



MODELS A-310, 315 & 320. "Power-Master" Beams are full sized arrays, each designed for a single band—10, 15 or 20 meter.

Superlative performance and construction characterizes each beam to insure satisfaction under the most adverse conditions.

"Power-Master" Antennas are 100% rust-proof—stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom provide many additional years of trouble-free operation.

Low SWR over entire bandwidth. 8.9db gain on all bands with an operating capacity well over 1KW. "Power-Master" is fed with 52 ohm coax using the famous Mosley Match.

Power Master
ANTENNAS

MODEL A-310 *3 Elements—10 Meters*	$37.50
Forward Gain	8.9 db
Front-to-Back	28 db
SWR	1.1/1
Max. Element Lgth.	18' 7"
Boom	12' X 1¼"OD X.058
Turning Radius	11' 1"
Wind Load	69 Lbs.
Assembled Wt.	25 Lbs.
Shipping Wt.	33 Lbs.

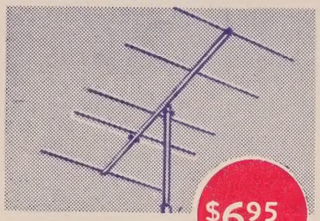
MODEL A-315 *3 Elements—15 Meters*	$42.50
Forward Gain	8.9 db
Front-to-Back	28 db
SWR	1.1/1
Max. Element Lgth.	23' 4"
Boom	12' X 1¼" OD X.058
Turning Radius	13' 2"
Wind Load	87 Lbs.
Assembled Wt.	26 Lbs.
Shipping Wt.	34 Lbs.

MODEL A-320 *3 Elements—20 Meters*	$77.25
Forward Gain	8.9 db
Front-to-Back	25 db
SWR	1.1/1
Max. Element Lgth.	35' 4"
Boom	14' X 1½" OD X
Turning Radius	18' 9"
Wind Load	200 Lbs.
Assembled Wt.	34 Lbs.
Shipping Wt.	40 Lbs.

HERE ARE THE GREAT hy-gain VHF YAGI'S FOR

2M, 1¼M & ¾M OPERATION

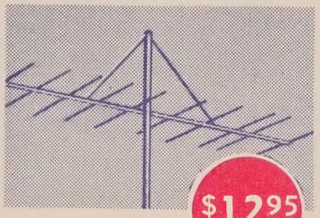
9 db GAIN



$6.95

Model No. 25
2M, 5 Element

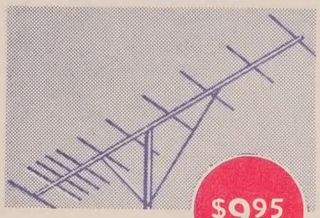
13.4 db GAIN



$12.95

Model No. 210
2M, 10 Element

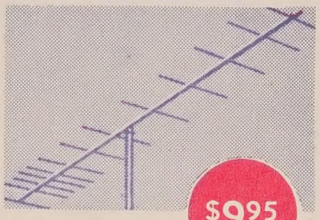
14.2 db GAIN



$9.95

Model No. 111
1¼M, 11 Element

16.1 db GAIN



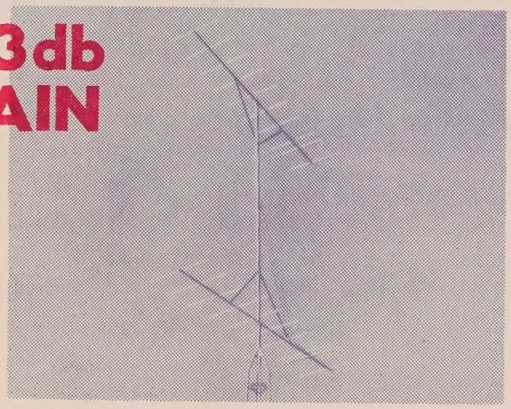
$9.95

Model No. 313
¾M, 13 Element

These Hy-Gain VHF Antennas are OPTIMUM SPACED for maximum forward gain. Parasitic elements are constructed from solid 6061T6 alloy aluminum rod for High Q, resulting in tremendous efficiency. The booms are large diameter heavy wall aluminum tubing. All hardware is hot dipped galvanized iridite treated for maximum weather ability. Guaranteed for 1 full year.

Now Available! COMPLETE STACKING KITS & MOUNTING FRAMES for Construction of Extremely HIGH GAIN Dual & Quad Stacked Arrays!

+ 3db GAIN



Stacking two of any of the above hy-gain VHF beams results in an additional 3 db gain with considerable reduction in vertical beam width, concentrating maximum power at low vertical angles which are so important in VHF propagation. Stacking kits include all phasing lines, matching transformers, all necessary hardware (less mast), and complete assembly instructions.

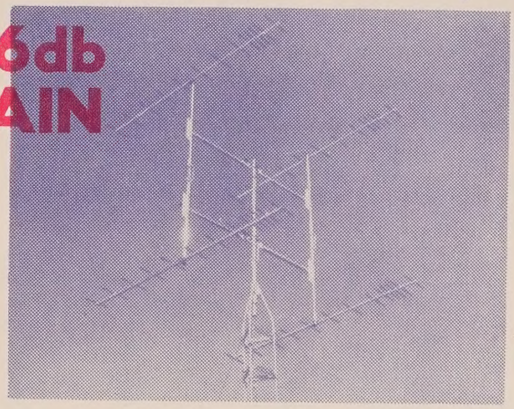
Complete Stacking Kit for any two Hy-Gain VHF Yagi's

Order by Model No.

25S	(for 2-2M, 5 Element Beams)	$4.95 Net.
210S	(for 2-2M, 10 Element Beams)	
111S	(for 2-1¼M, 11 Element Beams)	
313S	(for 2-¾M, 13 Element Beams)	

All kits complete with detailed instruction manuals. For use with most types of transmission lines. Completely factory pre-tuned.

+ 6db GAIN



Stacking four of any of the above hy-gain VHF beams results in an additional 6db forward gain, together with the all important reduction in both vertical and horizontal beam width. The quad stack arrangement results in the maximum concentration of radio frequency energies within the mechanical limitations of most Amateur installations. Stacking kits include all phasing lines, matching transformers, all necessary hardware (less mast), and complete assembly instructions. Stacking frame assemblies (SF) include all necessary heavy duty steel and aluminum tubing specially designed positive grip brackets and hardware (less main mast).

Complete Stacking Kit for any four Hy-Gain VHF Yagi's

Order by Model No.

25QS	(for 4-2M, 5 Element Beams)	$15.95 Net.
210QS	(for stacking 4-2M, 10 Element Beams)	
111QS	(for 4-1¼M, 11 Element Beams)	
313QS	(for stacking 4-¾M, 13 Element Beams)	

Stacking Frames for use with any of the above.
Quad Stacking Kits, $59.50

Order by Model No.

25SF	(stacking frame for the 4-2M, 5 Element Beams)
210SF	(stacking frame for the 4-2M, 10 Element Beams)
111SF	(stacking frame for the 4-1¼M, 11 Element Beams)
313SF	(stacking frame for the 4-¾M, 13 Element Beams)

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LEW BONN CO.
1211 LaSalle Ave.
Minneapolis 3, Minn.

hy-gain antenna products

1135 NO. 22ND • LINCOLN NEBRASKA

Outstanding New VHF Mobile Systems

THE NEW hy-gain halo

for 6 meters

Model HH-6

- ★ High mechanical stability with minimum wind resistance made possible by 1" diameter tubing, heavy duty hardware, and high impact styron insulators.
- ★ Resonating capacitor completely weather-sealed in polyethylene cover and cap assembly. THE FIRST ALL-WEATHER PROTECTED HALO.
- ★ Perfect match to either 52 or 72 ohm coax made possible through use of hy-gain's exclusive gammaxial gamma match system. No external matching sections required.

$12.95 Net

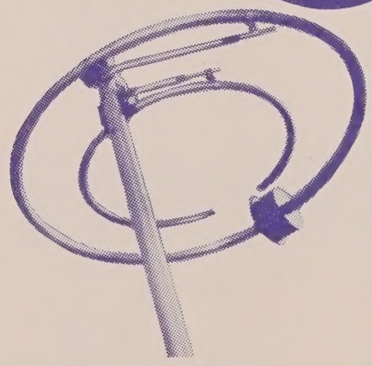
or for 2 meters

Model HH-2

- ★ Extremely small and light weight, weighing less than 1 lb., and only 14" in diameter, the 2M Halo is constructed of high strength heavy wall ½" aluminum tubing.
- ★ Adjustable over the entire 2M Band and providing up to 15 db gain over Vertical Whips when working other stations using horizontally polarized antennas.
- ★ Perfect match to either 52 or 72 ohm coax made possible through use of hy-gain's exclusive gammaxial gamma match system. No external matching sections required.
- ★ Available stacked for additional 3 db gain.

Stacking Kit for 2-Meter hy-gain Halo, complete with all hardware and matching sections. (Order two model HH-2 Halos). Model HHS-2 Net $3.00.

$5.95 Net



Unique hy-gain development permits combination of both 6 and 2 meter Halos to form high efficiency Duo-Bander Halo for operating either band with a single feedline and low SWR. Order both HH2 and HH6. Come complete with simplified instructions for assembly.

Eight ft. telescoping aluminum mounting mast complete with threaded stud for any standard mobile mount. For use with either 6M or 2M hy-gain Halo, stacked or single.

Model HM Net $4.95

In Stock at All Leading Distributors

1135 NO. 22ND

hy-gain antenna products

LINCOLN NEBRASKA

there are more hy-gain trap tribanders in use than all other three-band beams combined!

LEW BONN CO.
1211 LaSalle Ave.
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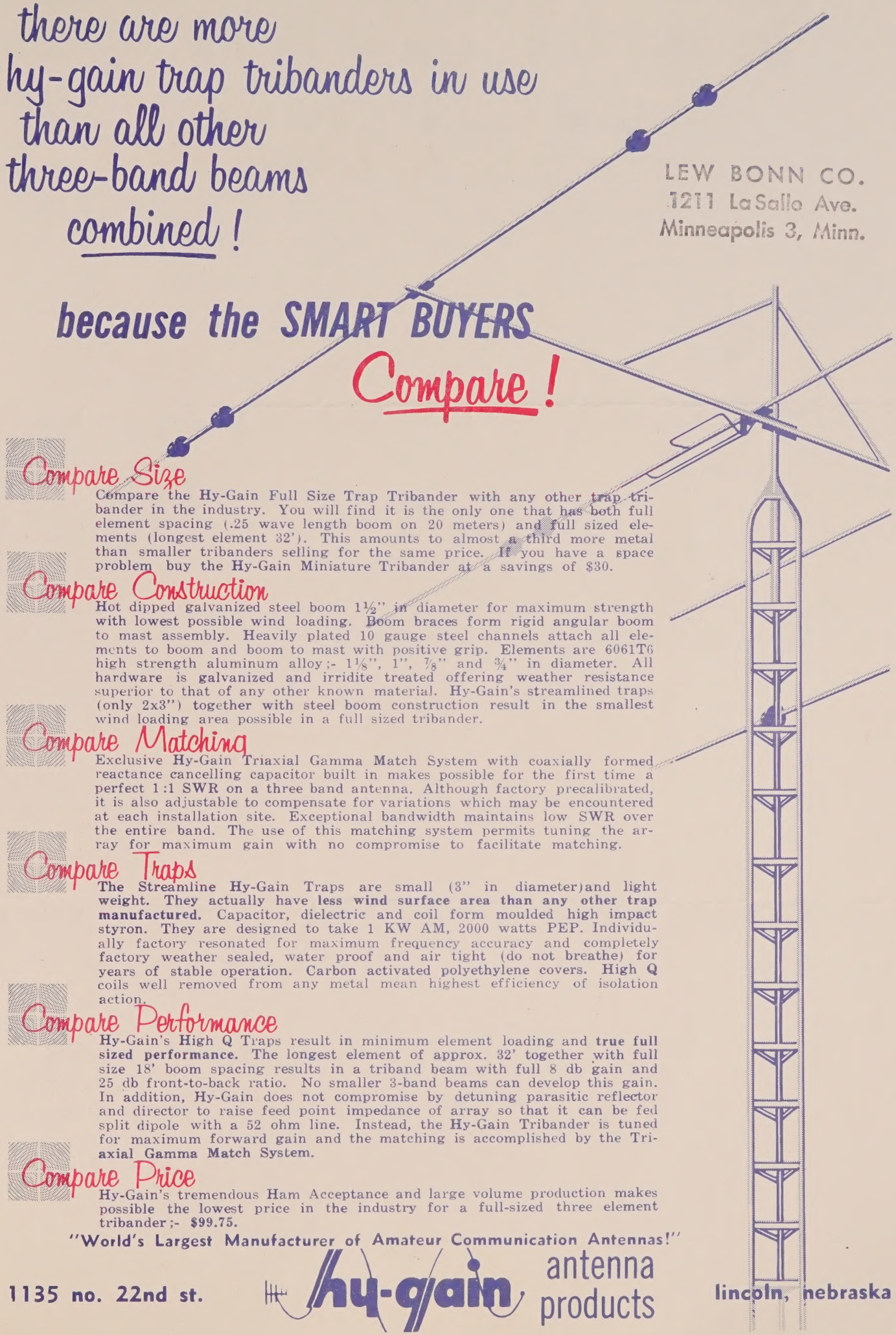
because the SMART BUYERS Compare!



Compare Size

Compare the Hy-Gain Full Size Trap Tribander with any other trap tribander in the industry. You will find it is the only one that has both full element spacing (.25 wave length boom on 20 meters) and full sized elements (longest element 32'). This amounts to almost a third more metal than smaller tribanders selling for the same price. If you have a space problem buy the Hy-Gain Miniature Tribander at a savings of $30.

Compare Construction

Hot dipped galvanized steel boom 1½" in diameter for maximum strength with lowest possible wind loading. Boom braces form rigid angular boom to mast assembly. Heavily plated 10 gauge steel channels attach all elements to boom and boom to mast with positive grip. Elements are 6061T6 high strength aluminum alloy;- 1⅛", 1", ⅞" and ¾" in diameter. All hardware is galvanized and irridite treated offering weather resistance superior to that of any other known material. Hy-Gain's streamlined traps (only 2x3") together with steel boom construction result in the smallest wind loading area possible in a full sized tribander.

Compare Matching

Exclusive Hy-Gain Triaxial Gamma Match System with coaxially formed reactance cancelling capacitor built in makes possible for the first time a perfect 1:1 SWR on a three band antenna. Although factory precalibrated, it is also adjustable to compensate for variations which may be encountered at each installation site. Exceptional bandwidth maintains low SWR over the entire band. The use of this matching system permits tuning the array for maximum gain with no compromise to facilitate matching.

Compare Traps

The Streamline Hy-Gain Traps are small (3" in diameter)and light weight. They actually have less wind surface area than any other trap manufactured. Capacitor, dielectric and coil form moulded high impact styron. They are designed to take 1 KW AM, 2000 watts PEP. Individually factory resonated for maximum frequency accuracy and completely factory weather sealed, water proof and air tight (do not breathe) for years of stable operation. Carbon activated polyethylene covers. High Q coils well removed from any metal mean highest efficiency of isolation action.

Compare Performance

Hy-Gain's High Q Traps result in minimum element loading and **true full sized performance.** The longest element of approx. 32' together with full size 18' boom spacing results in a triband beam with full 8 db gain and 25 db front-to-back ratio. No smaller 3-band beams can develop this gain. In addition, Hy-Gain does not compromise by detuning parasitic reflector and director to raise feed point impedance of array so that it can be fed split dipole with a 52 ohm line. Instead, the Hy-Gain Tribander is tuned for maximum forward gain and the matching is accomplished by the Tri-axial Gamma Match System.

Compare Price

Hy-Gain's tremendous Ham Acceptance and large volume production makes possible the lowest price in the industry for a full-sized three element tribander;- **$99.75.**

"World's Largest Manufacturer of Amateur Communication Antennas!"

1135 no. 22nd st. hy-gain antenna products **lincoln, nebraska**

On the Hy-gain Beam . . .

Element length and spacing of the 3-Element Trap Tribander

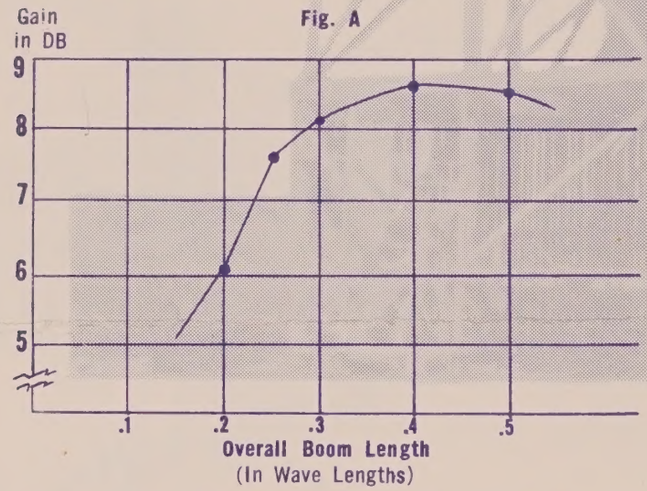
ONE OF A SERIES

Two extremely important factors in the design of any parasitic array must be more carefully considered in the design of a three element three band antenna system. ELEMENT SPACING is the distance between the parasitic reflector, driven element and parasitic director in the antenna. It is usually expressed in terms of wave length. ELEMENT LENGTH in this particular context, refers to the over all length of an element which is electrically loaded through the insertion of a series inductance. Many values of series inductance may be introduced into an element to shorten it physically while maintaining its electrical length or resonance. Our analysis in this discussion concerns the relative efficiency of an antenna thus loaded as compared to one using no loading or natural length elements.

Element Spacing

The forward gain of a three element array varies over a range of plus or minus ½ of 1 DB at over all boom length between .25 and .5 wave lengths. Above .5 wave lengths over all boom length, the forward gain begins to drop rather slowly. At spacings closer than .25 wave length over all boom length, the forward gain drops very abruptly. See figure A below.

Fig. A



As a result of this conclusive evidence, Hy-Gain's engineers use an over all boom length of 18 feet for our full size trap tribander antenna. This boom length falls in the region of maximum forward gain on the graph, since it is equivalent to .25 wave length on 20 meters and .5 wave length on 10 meters. This makes possible the development of the following gains: 20 meters — approximately 7.6 DB, 15 meters — approximately 8.5 DB, and on 10 meters—approximately 8.4 DB. NO CLOSER SPACED TRIBANDER CAN ACTUALLY DEVELOP THESE FORWARD GAINS. It was also found that at over all boom lengths in the .5 wave length region, the front to back ratio deteriorates rather severely. In order to improve the front to back ratio on 10 meters in the Hy-Gain 3-Element full size trap tribander, Hy-Gain's engineers choose to insert an interlaced, more closely spaced, 10 meter reflector. This greatly improves the front to back ratio on 10 meters without affecting the forward gain appreciably.

Element Length

Any reduction in the physical length of an element in an antenna system reduces its efficiency. This is evidenced by a reduction in forward gain and operational band width. In a tribander antenna system using lumped constant parallel resonant traps, some reduction in overall element length occurs due to the incidental inductive loading of the traps. The 10 meter traps are effectively in series in the 15 meter element and both the 10 and 15 meter traps are effectively in series with the 20 meter element thus reducing their physical length in the tribander system. Shorter elements result in a less efficient antenna system because part of the active element that would normally contribute to the radiated field is wound up into a loading coil whose radiation field is quite small. In addition, certain extra RF losses in the loading coil further reduce the efficiency of the element. In order to keep from reducing the element length any more than was absolutely necessary (and thus maintain the highest degree of efficiency) Hy-Gain's engineers chose the lowest value of inductance consistent with efficient trap action for use in our full size tribander series. This results in a tribander which is only slightly reduced in size. The longest element of the Hy-Gain full size tribander series is 32 feet as compared with approximately 35 feet for a natural length element on 20 meters. TRIBANDERS USING HIGH VALUES OF INDUCTANCE IN THEIR TRAP CIRCUITS END UP WITH SHORTER ELEMENTS AND A TREMENDOUS LOSS IN EFFICIENCY.

Full Sized Tribander

Hy-Gain's full size three element trap tribander with an 18 foot boom and longest element of approximately 32 feet makes possible a three band beam with high efficiency developing approximately 8 db gain on 10, 15 and 20 meters. No smaller three band beam can develop this gain. And remember, Hy-Gain's full size tribander with the triaxial gamma match system sells for only **$99.75** ham net.

Miniature Tribander

If you have a space problem, buy Hy-Gain's miniature tribander. In this case, a shorter boom spacing (approximately 12 feet) was chosen together with a higher value of inductive loading in the traps. This results in a small sized tribander which still develops approximately 5 db forward gain. (Somewhat higher on 10 meters). Hy-Gain's miniature tribander which will handle the maximum legal power sells for only **$69.50.** No other reduced size tribander regardless of price can develop more gain.

VY 73

Andrew A. Andros

Andrew A. Andros, WØLTE
President
Hy-Gain Antenna Products Co.